SAMSUNG
ELECTRONICS

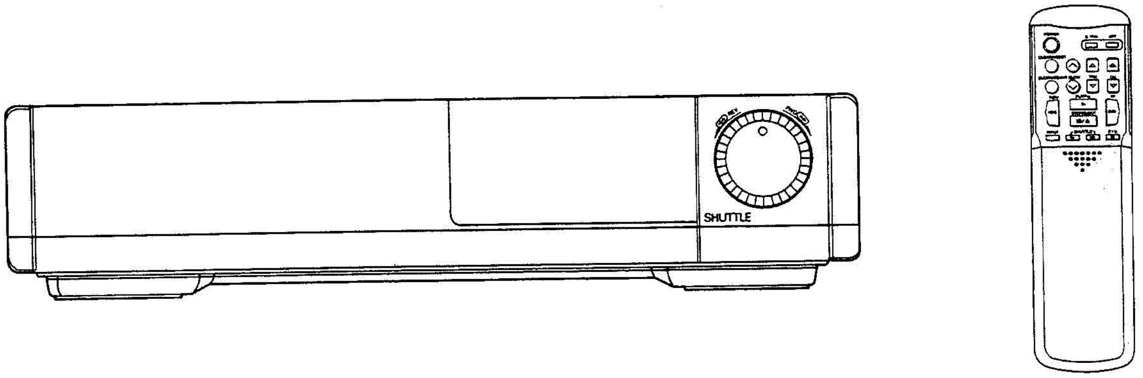
VHS PAL

Hi-Fi
STEREO
HQ

SERVICE MANUAL
MODEL : VX-380

SVM-P13-029-1E
68139 - 132 - 129

VIDEO CASSETTE RECORDER



SPECIFICATIONS

Format : VHS PAL/MESECAM Hi-Fi standard

Video Recording System : Double Azimuth 4 Rotary Heads
Luminance ; FM Azimuth recording
Color ; Down converted subcarrier phase shifted direct recording

Television System : PAL and MESECAM Color and B/W signal

Audio Recording System : Normal ; Mono
Hi-Fi ; Stereo (2 carrier FM azimuth recording)

Tape Width : 12.65 mm (1/2 inch)
Tape Speed : SP ; 23.39 mm/sec
LP ; 11.69 mm/sec

Recording/Playback Time : SP ; 4 hours with E-240 type
LP ; 8 hours with E-240 tape

FF/REW Time : Less than 3 min 10sec in REW, Less than 3 min 40 sec in FF with E-180

Heads : Video ; Double Azimuth 4 Rotary heads
Audio ; 2 Rotary heads (Hi-Fi)
Audio/Control ; 1 stationary head (Linear)
Erase ; 1 full track erase (Linear)

VIDEO
Input : 0.5 to 2.0 Vp-p ; 75 ohm unbalanced
Output : 1.0 Vp-p ; 75 ohm unbalanced
Signal-to-Noise Ratio : Better than 43 dB (SP)
Better than 40 dB (LP)
Horizontal Resolution : More than 240 Lines (SP)
More than 220 Lines (LP)

AUDIO
Input : Line ; -8 dBm, 50 Kohm unbalanced
Output : Line ; -4±3dBm, 1 Kohm unbalanced
Wow-Flutter (WTD) : 0.4 % Max (SP)
1.5 % Max (LP)

Frequency Response : Linear Audio (SP) ; 100Hz ~ 8KHz
(LP) ; 100Hz ~ 5KHz
Hi-Fi Audio ; 20Hz~20KHz

Receiving Channel : VHF LOW, VHF HIGH, UHF

Power Requirement : 100V~240V (AC 50/60Hz)
Power Consumption : Approx. 28 watts
Operation Temperature : 41 ° F ~ 104 ° F (5 ° C ~ 40 ° C)
Operation Humidity : 10 % ~ 75 %
Weight : 5 Kg
Dimensions : 420 (W) x 102.5 (H) x 330 (D) mm

AUG. 1993

Printed in Korea

SERVICE MANUAL

QUELLE

VHS VIDEO CASSETTE RECORDER

VR - 4636

INCLUSIVE: SAMSUNG VX - 380 (Lfd.Nr. V10052)

BAUGLEICH: SAMSUNG VR - 4636

Schaltungsdienst Lange OHG
D-12277 Berlin
Tel.:(030)723 81 410

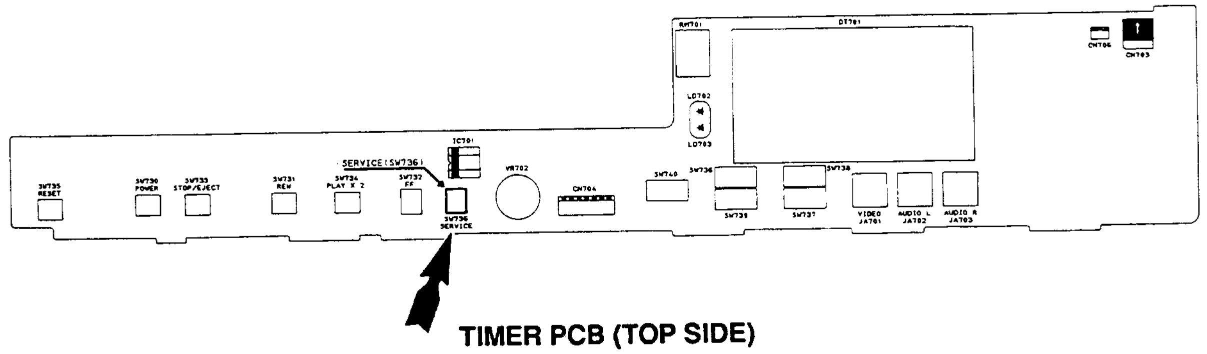
LfdNr. V06957

IMPORTANT SERVICE NOTICE

1. Service Option

For this chassis of VCR, the sensor (start / end / reel) are located on the Main PCB not in the deck assembly. There is a important service option that has to be followed to repair Main PCB without "deck assembly" connected. To imitate the function of the sensor, push the "SERVICE" key (SW736) on the Timer PCB.
See diagram below.

Note : After connecting extension cable 4 between deck assembly and Main PCB, to make a cassette load, cover start sensor, then press and hold a cassette in the housing assembly.


RM701
DT701
CN706
CN703
LD702
LD703
IC701
SERVICE(SW736)
SW735
RESET
SW730
POWER
SW733
STOP/EJECT
SW731
REW
SW734
PLAY X 2
SW732
FF
SW736
SERVICE
VR702
CN704
SW740
SW736
SW738
SW739
SW737
VIDEO
JA701
AUDIO L
JA702
AUDIO R
JA703

TIMER PCB (TOP SIDE)

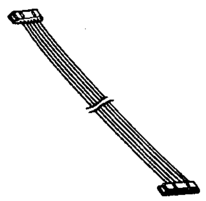
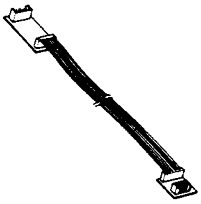
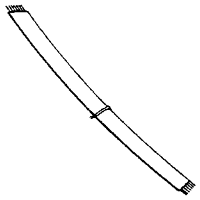
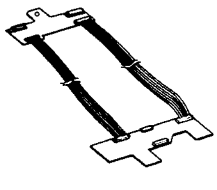
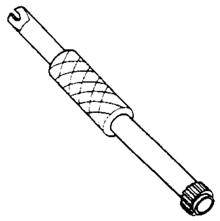
Note : To release the imitated function of sensor, push the "RESET" key on the Timer PCB or unplug the AC power cord and plug it again.

2. How to use the Service Jig

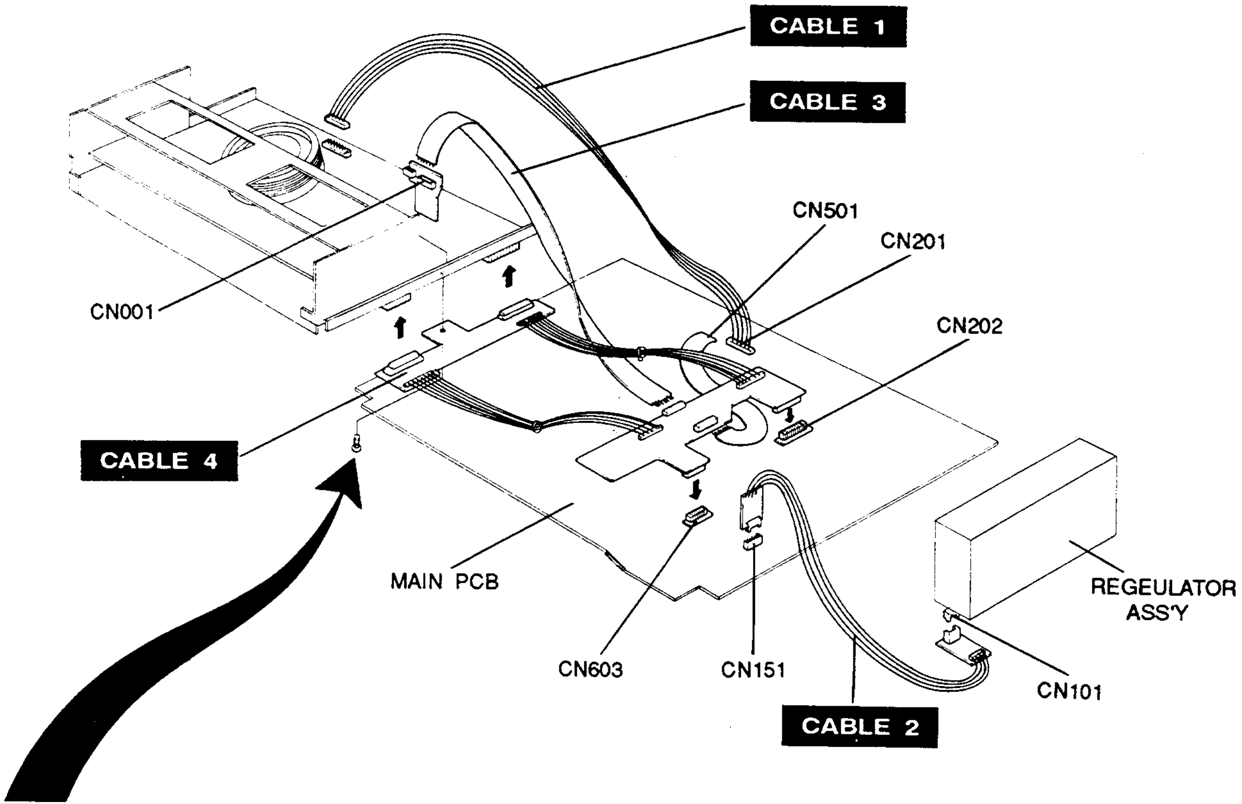
To have extended service ability for this unit, you must purchase the "Service Jig for X-3 Chassis VCR".

Note : This service jig can be used for several models of Samsung VCRs. Please keep it for future use.

Jig Item	Code NO.	Description	Sketch NO.
Extension			
Cable 1	68140-300-103	Use for Cylinder Motor ↔ Main PCB (CN201) Connecting Cable	A
Cable 2	68140-300-105	Use for Regulator (CN101) ↔ Main PCB (CN151) Connecting Cable	B
Cable 3	68140-300-106	Use for A/C Head (CN001) ↔ Extension Cable 4 Connecting Cable	C
Cable 4	68140-300-107	Use for Deck ↔ Main PCB (CN202, CN603) Connecting Cable	D
Special Driver	68140-500-100	Use for X-Point Adjust / Tape path Alignment	E

A : CABLE 1	B : CABLE 2	C : CABLE 3	D : CABLE 4	E : SPECIAL DRIVER
				

3. Extension Cable Connections


CABLE 1
CABLE 3
CN501
CN201
CN202
CN001
CABLE 4
MAIN PCB
REGEULATOR ASS'Y
CN603
CN151
CN101
CABLE 2

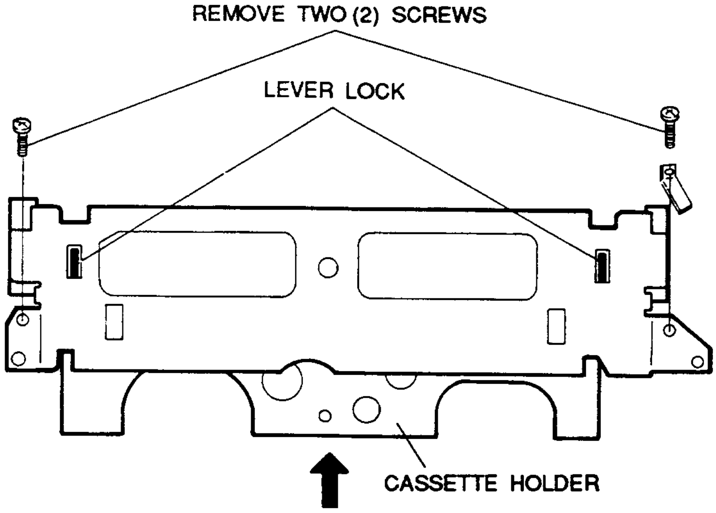
Note : Remove one (1) screw from the eject drive gear and connect extension cable, and install the screw again.

4. How to operate the VCR without a cassette tape

Note : First, push the "SERVICE" key (SW736) on the Timer PCB.

Method 1 : Press the top of the lever lock (L) and (R) simultaneously, then push the cassette holder.
All function will work in this mode.

Method 2 : Remove two (2) screws securing the upper chassis, then lift up the upper chassis. Push the cassette holder.
All function will work in this mode.


REMOVE TWO (2) SCREWS
LEVER LOCK
CASSETTE HOLDER

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1. GENERAL DESCRIPTION

1-1. SAFETY PRECAUTIONS

1. Before returning a Video Cassette Recorder to the customer, always make a safety check of the entire instrument, including, but not limited to the following items:

a. Be sure that no built-in protective devices are defective and/or have been defeated during servicing.

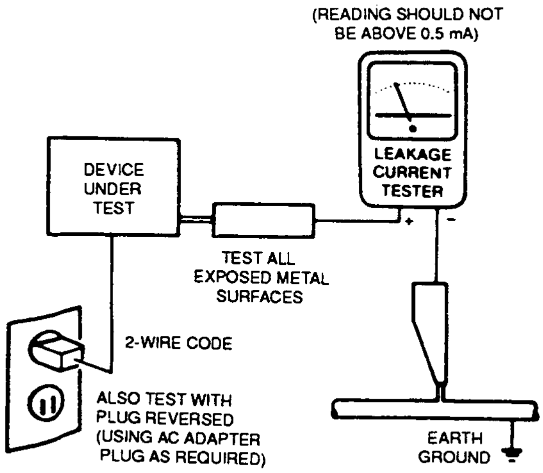
(1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience.

(2) When reassembling the instrument, be sure to put back in place all protective devices, including, but not limited to nonmetallic control knobs, insulating, fish papers adjustment and compartment covers/shields, and isolation resistor/capacitor networks.
Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning.

b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contract a hazardous voltage. Such openings include, but are not limited to, (1) excessively wide cabinet ventilation slots, and (2) improperly fitted and/or incorrectly secured cabinet covers.

c. Antenna Cold Check-With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each tuner antenna input exposed terminal screw and, to each of the coaxial connectors.

If the measured resistance is less than 1.0 megaohm or greater than 5.2 megaohm, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.


(READING SHOULD NOT BE ABOVE 0.5 mA)
LEAKAGE CURRENT TESTER
+
-
DEVICE UNDER TEST
TEST ALL EXPOSED METAL SURFACES
2-WIRE CODE
ALSO TEST WITH PLUG REVERSED (USING AC ADAPTER PLUG AS REQUIRED)
EARTH GROUND

AC Leakage Test

d. Leakage Current Hot Check-With the instrument completely reassembled plug the AC line cord directly into a 220 (240V-UK) AC outlet. (Do not use an isolation transformer during this test). Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, Measure for current from a known earth ground (metal waterpipe, conduit, etc) to all exposed metal parts of the instrument (antennas, handle bracket, metal , etc), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milliamp. Reverse the instrument power cord plug in the outlet and repeat test.

ANY MEASUREMENT NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR CONNECTING ANTENNA OR ACCESSORIES.

e. AC Leakage Test
Avoid shock hazards. The television instrument, accessory, or cables (s) to which this VCR (VCP) is connected should have the applicable sections of the leakage resistance antenna cold check and the leakage current hot check performed. Do not connect this VCR (VCP) to a TV antenna, cable or accessory that exhibits excessive leakage currents.

2. Read and comply with all caution and safety related notes on or inside the VCR (VCP) cabinet and chassis.

3. **Design Alteration Warning**-Do not alter or add to the mechanical or electrical design of this Video Cassette Recorder (Player). Design alterations and additions, including, but not limited to circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this instrument and create a hazard to the user. Any design alterations or additions may void the manufacturer's warranty and may make you,the servicer responsible for personal injury or properly damage resulting therefrom.

4. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: a) near sharp edges, b) near thermally hot parts-be sure that leads and components do not touch thermally hot parts, c) the AC supply, and d) antenna wiring. Always inspect in all areas for pinched, out-of-place, or frayed wiring between components and the printed circuit board.
Check AC power cord for damage.

5. Components, parts and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications, Additionally, determine the cause of overheaing and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

6. **Product Safety Notice**
Some electrical and mechanical parts have special safety related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage,wattage etc. Parts that have special safety characteristics are identified by a (*) or (⚠) on schematics and parts list. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards.
Products safety is under review continuously and new instructions are issued whenever appropriate.

1-2. ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to appling power to the unit under test

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.

5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive foam, aluminum foil or comparable conductive material)

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

SPECIAL NOTE
All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore reguire the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

IMPORTANT SAFETY NOTICES
Components identified with the mark ⚠ have the special charateristics for safety when replacing any of these components. Use only the same type.

1-3. GENERAL INFORMATION

- **VISS (VHS Index Search System)**

Viss is the function of searching swiftly to previously designated points of interest on the tape using the index signal.

– **Index Search**

This function fast forwards or rewinds the tape to the point with the specified index signal, and starts playback from there automatically.

– **Index Scan**

This function fast forwards or rewinds the tape to the point with the first adjacent index signal, and starts playback 5 seconds before searching for the next index signal. This operating continues until all index signals have been found in the selected direction.

– **Index Mark**

Index marks are recorded automatically on the tape each time the VCR being recording.
In the playback mode, index mark is recorded by pressing "MARK" button. (Index signals can only be set on cassettes with erase safety tab intact.)

- **SHUTTLE**

By turning the SHUTTLE ring clockwise or counter-clockwise, variable-speed search is possible in either the forward or reverse direction from either the Play or Still modes.

– **ON VCR**

To search in the reverse direction, turn the SHUTTLE ring gradually counterclockwise. The farther the dial is rotated, the faster the search speed becomes from - 1 to - 11 times in the SP and LP modes.
To search in the forward direction, turn the SHUTTLE ring gradually clokwise. The farther the dial is rotated, the faster the search speed becomes from 1 to 11 times in the SP and LP modes.

– **ON Remocon**

During playback, each time press the SHUTTLE button, the picture speed will be changed as follows. Slow motion - Still - 1 to - 11 times speed. During playback, each time press the SHUTTLE button, the picture speed will be changed as follows. 3 times speed - 7 times speed - 11 times speed picture.

- **MULTI ON - SCREEN DISPLAY**

On-screen display system for timer programming and mode display. It is possible to select one among 5 languages ; German, Spanish, English, Italian, French.

- **AUDIO DUBBING**

Audio dubbing is the process of recording new audio in place of the audio that was formerly recorded on the linear (monaural) audio track.

- **CHILD LOCK (SAFETY LOCK) SYSTEM**

Child lock system can be looked the VCR to prevent by young children. This feature can be operated by the remore control in eject mode only. If this system is operated, the tape can't be inserted.

- **AUTOMATIC DIGITAL TRACKING**

Adjusts the tracking automatically to optain the best tracking position. When a cassette is inserted the DIGITAL TRACKING will function untill the tracking is set.

- **Unattended (Timer) Recording**

The programmable timer can be preselected up to one month in advance to record up to 4 preselected programs (Normal program, daily program or weekly program)
The timer turns VCR on and off, and changes channels automatically.

- **EPS (Easy Programming System)**

It is possible to record up to 9 hours without programming the timer. It is also possible to start (continue) recording immediately.

- **REMAIN**

This function displays remaining tape time in hours and minutes during playback or record mode.

- **Double Speed Playback (X2)**

Pushing PLAY button again in the playback mode, picture search is performed 2 times as fast as normal playback.

- **Frame Advance**

This function can be advanced one by one frame by pushing P/S button.

- **SLOW (Various Slow Motion Playback)**

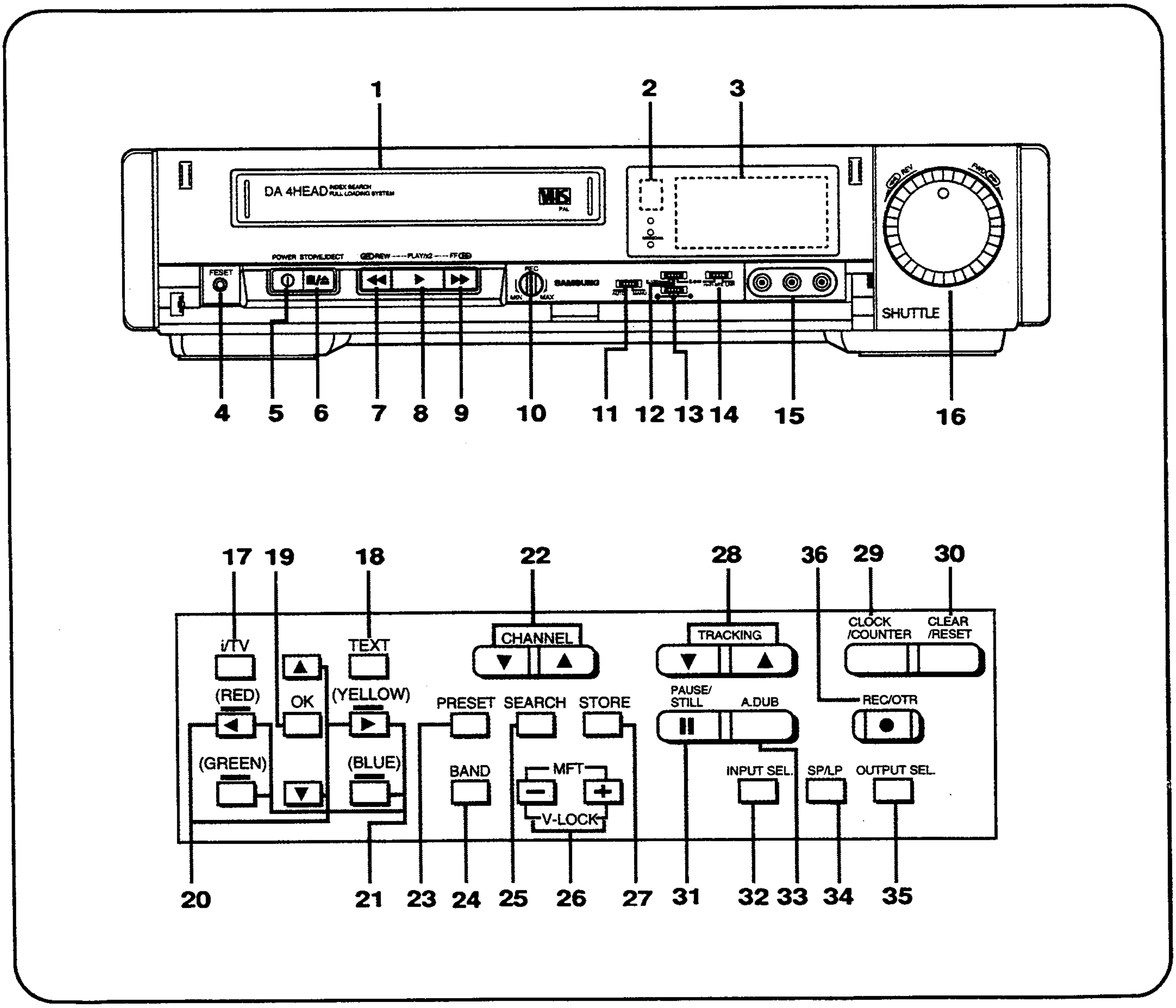
This is for adjustment of the slow speed operation in playback.

- **Warp Search**

It is possible to search the picture during rewinding or fast forward the tape.

1-4. OPERATING CONTROLS AND FUNCTIONS

1-4-1. FRONT PANEL


1
2
3
DA 4HEAD
RESET
SHUTTLE
4
5
6
7
8
9
10
11
12
13
14
15
16
17
19
18
22
28
36
29
30
i/TV
TEXT
CHANNEL
TRACKING
CLOCK /COUNTER
CLEAR /RESET
(RED)
OK
(YELLOW)
PRESET
SEARCH
STORE
PAUSE/ STILL
A.DUB
REC/OTR
(GREEN)
(BLUE)
BAND
MFT
V-LOCK
INPUT SEL.
SP/LP
OUTPUT SEL.
20
21
23
24
25
26
27
31
32
33
34
35

1 VIDEO CASSETTE COMPARTMENT

Insert a cassette into cassette compartment.

2 WIRELESS REMOTE SENSOR

Receives signal from infrared remote control.

3 MULTIFUNCTION DISPLAY

4 RESET BUTTON

Press to initialize the VCR in emergency or abnormal state.

5 POWER BUTTON

Press to turn VCR on or off.
Press while in the Timer Programming mode to engage the Timer Standby mode.

6 STOP/EJECT BUTTON

Press to stop the tape during playback, recording, rewind or fast-forward.
Press to take out a cassette tape in STOP mode.

7 REWIND (REWIND/REVERSE PICTURE SEARCH) BUTTON

8 PLAY (PLAY X2) BUTTON

9 FF (FAST FORWARD/FORWARD PICTURE SEARCH) BUTTON

9 P/S F.ADV BUTTON

10 REC VOLUME CONTROL

Use to adjust the level of Hi-Fi audio for recording.

11 AUTO/MANU SLIDE SWITCH

Setting this switch to AUTO activates the built in audio limiter circuit for both channels so that the recording level is automatically controlled.
For manual adjustment, set this switch to MANU.
(The recording level for normal audio is always controlled automatically regardless of the setting of this switch.)

12 TAPE SELECT SWITCH PLAYBACK

Select the tape type for remaining tape time.

13 PICTURE CONTROL SWITCH

Use to adjust the picture quality.(effective only in the playback mode)

14 AUDIO SELECT SWITCH

Select the audio track to be listened to.
This switch is effective for all Audio output.
(RF out, Audio out)
Hi-Fi: To listen to the sound on the Hi-Fi audio track.
MIX: To listen to the mixed sound of Hi-Fi and normal audio track.
(For example, to enjoy Hi-Fi audio while at the same time listening to a narration dubbed on to the normal audio track).
LINEAR: To listen to the sound on the normal audio track.

15 VIDEO IN AND AUDIO IN JACKS

Use to receive signals from other devices.
(such as a camcorder, another VCR, or amplifier receiver).

16 SHUTTLE RING

Use for variable speed search.

17 i/TV BUTTON

Switches to the screen dialog (information page) and back to the TV picture.

18 TEXT BUTTON

Press TEXT button to see teletext screen. The VCR changes to DIRECT SELECTION screen, if press TEXT button at teletext screen of TOP system.

19 OK BUTTON

Use to select the text programming of recordings and confirm data selected by users.

20 ◀ (RED), ▲, ▼, ▶ (YELLOW), BUTTONS

Use buttons for moving the cursor during text programming. For selecting various functions.

21 ◀ (RED), ▶ (YELLOW), GREEN, BLUE BUTTONS

Use buttons to select and confirm functions. In teletext mode, select pages.

22 CHANNEL UP/DOWN, AV/AUX

23 PRESET BUTTON

Press for TV channel programming.

24 BAND SELECT BUTTON

While TV channel programming, press to select band. (VHF low, VHF high, UHF)

25 SEARCH BUTTON

While in TV channel programming mode, press to commence the search for a broadcast station.

26 +, - BUTTONS

- In still mode, adjust this control to minimize vertical shaking on the TV screen.
- Press these buttons for MFT operation.

27 STORE BUTTON

Press to store the tuned-in channel in TV channel programming mode.

28 TRACKING ∇, Δ BUTTON

TRACKING can be adjusted manually by pressing the TRACING ∇, Δ button. The VCR's automatic tracking is tuned off whenever you press the TRACKING ∇ or Δ button.

29 CLOCK/COUNTER BUTTON

Press to switch between present time, tape counter and time remaining in the multifunction display and TV screen.

30 CLEAR/RESET BUTTON

Use to reset the counter to "0^{H}00^{M}0^{S}" or to clear memorized channel.

31 PAUSE/STILL BUTTON

- Press to stop the tape temporarily during playback or recording and to view the still picture.
- In still mode, press to advance one frame at a time.

32 INPUT SEL. BUTTON

Select recording signal from the tuner or front AUX or 21 pin Audio/Video in jacks or simulcast.

33 A. DUB (AUDIO DUBBING) BUTTON

While in the still mode, press to start audio dubbing stand by.

34 SP/LP BUTTON

Press this button to select tape speed you wish to record.

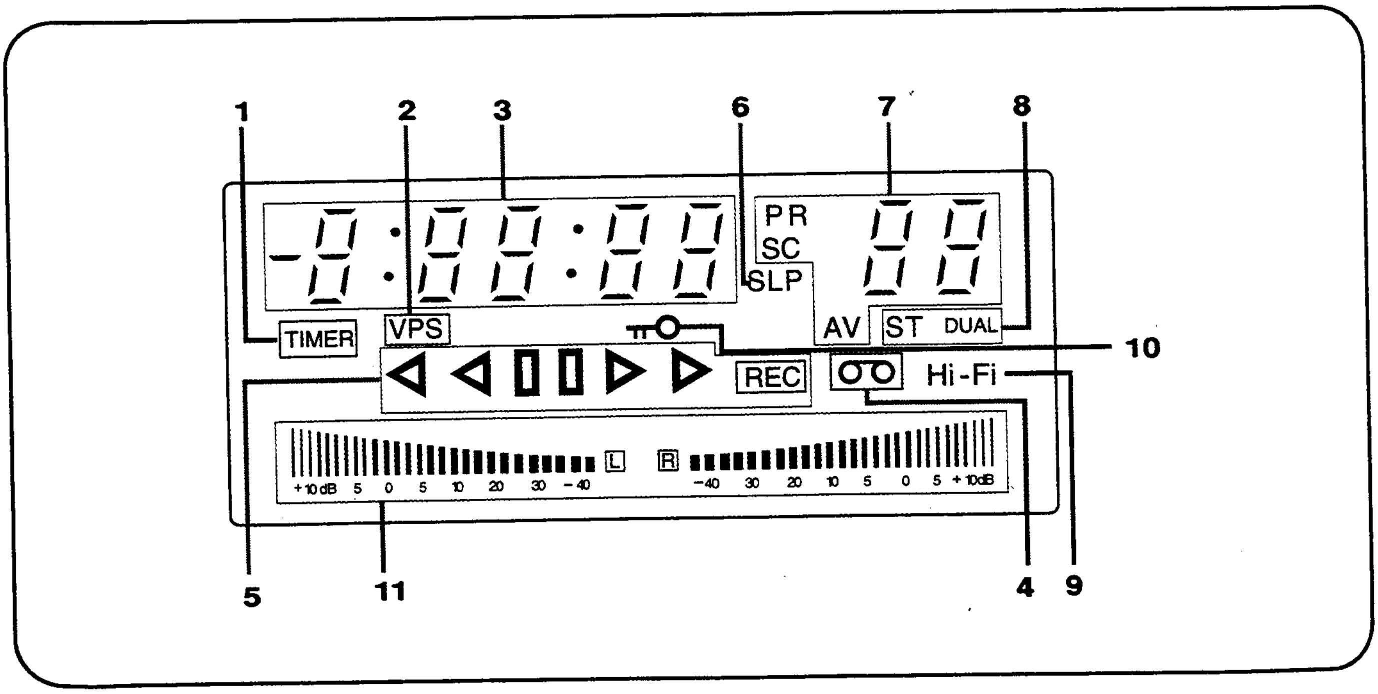
35 OUTPUT SELECT BUTTON

For selecting the audio output signals from the AUDIO OUTPUT terminals (L-CH or R-CH).

36 REC/OTR BUTTON

Press once to start recording.(during 1 sec)
Press twice to engage One Touch Recording mode.

1-4-2. MULTI-FUNCTION DISPLAY



1 TIMER INDICATOR

This indicates timer standby and timer recording mode.

2 VPS INDICATOR

Lights when VPS recording is selected.

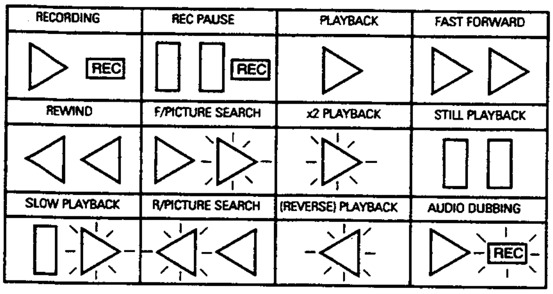
3 CLCCK/COUNTER INDICATOR

Displays present time, counter number, time remaining and OTR length.

4 CASSETTE-IN INDICATOR

This indicates that the cassette tape is in the unit.

5 FUNCTION MODE INDICATOR


RECORDING
REC
REC PAUSE
REC
PLAYBACK
FAST FORWARD
REWIND
F/PICTURE SEARCH
x2 PLAYBACK
STILL PLAYBACK
SLOW PLAYBACK
R/PICTURE SEARCH
(REVERSE) PLAYBACK
AUDIO DUBBING
REC

6 TAPE SPEED INDICATOR

This indicates the speed of tape.
When this indicator is SP, the speed of tape is standard play. When this indicator is LP, the speed of tape is double play.

7 CHANNEL NUMBER/INPUT SELECT INDICATOR

INPUT SELECT	DISPLAY	LINEAR	Hi-Fi	PICTURE
TUNER	PR 02	TV SOUND (from built in tuner)		TV Picture (from built in tuner)
SIMULCAST	PRSC 02	Audio signal from through front jack		TV Picture (from built in tnuer)
AV	Av	Audio signal from through Audio/video socket		Video singal from through video/audio socket
FRONT AUX	AU	Audio signal from through front jack		Video signal from through front jack

8 ST, DUAL INDICATORS

These indicators come on automatically when the station the VCR is tuned to is broadcasting stereo or bilingual.

9 AUDIO OUTPUT INDICATOR

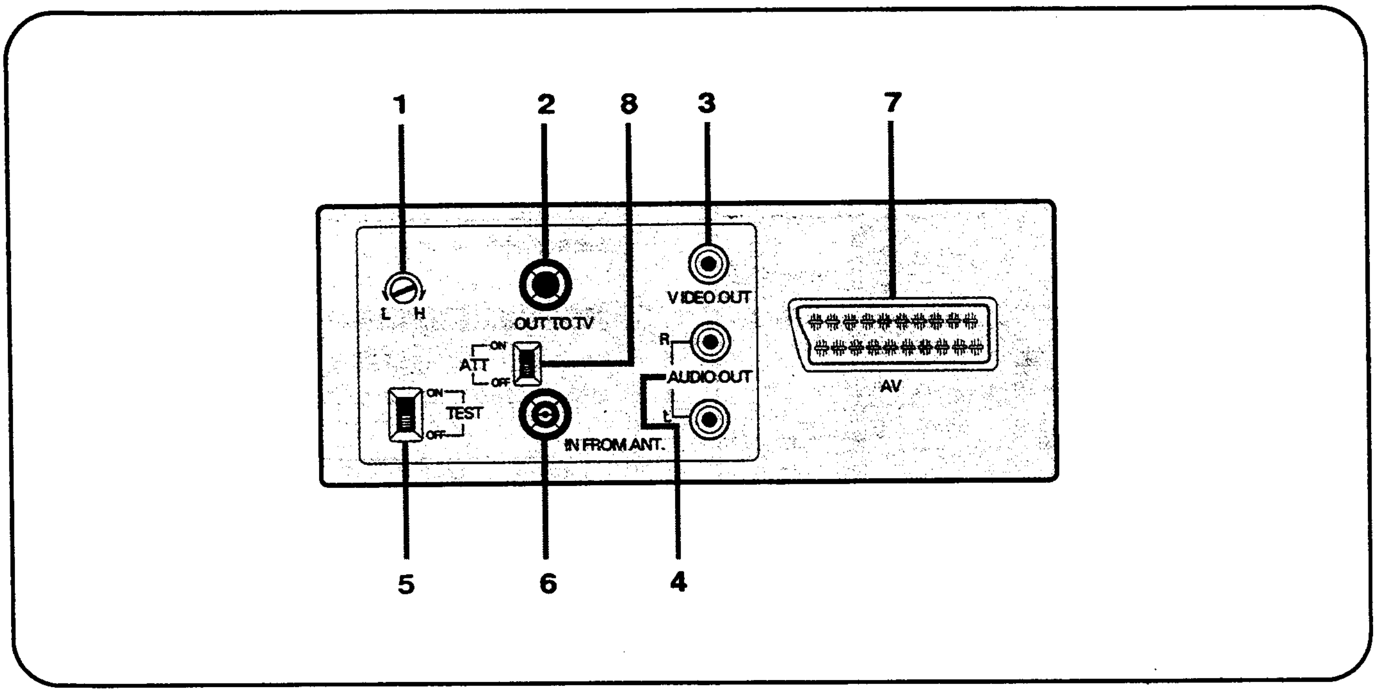
Illuminates to indicate audio output is Hi-Fi stereo, L-CH, or R-CH.
(NOTE: This indicator is off when AUDIO select switch is in linear position.)

10 SAFETY LOCK INDICATOR

11 Hi-Fi AUDIO OUTPUT LEVEL INDICATOR

Monitors the audio level during recording for playback.

1-4-3. REAR PANEL



1 RF CHANNEL PRESET

Set a now video channel and then return your TV channel to the new RF output.

2 RF OUT CONNECTOR

Connect to TV antenna (aerial) input

3 VIDEO OUT

To connect to TV monitor or another VCR.

4 AUDIO OUT

To connect to sound equipment, another VCR or TV monitor with AV jack.

5 TEST ON/OFF SWITCH

Turn this switch on and check that the video channel of your TV set is correct.

6 ANTENNA IN

Connect an aerial to this connector.

7 AUDIO/VIDEO(21-PIN SCART) SOCKET

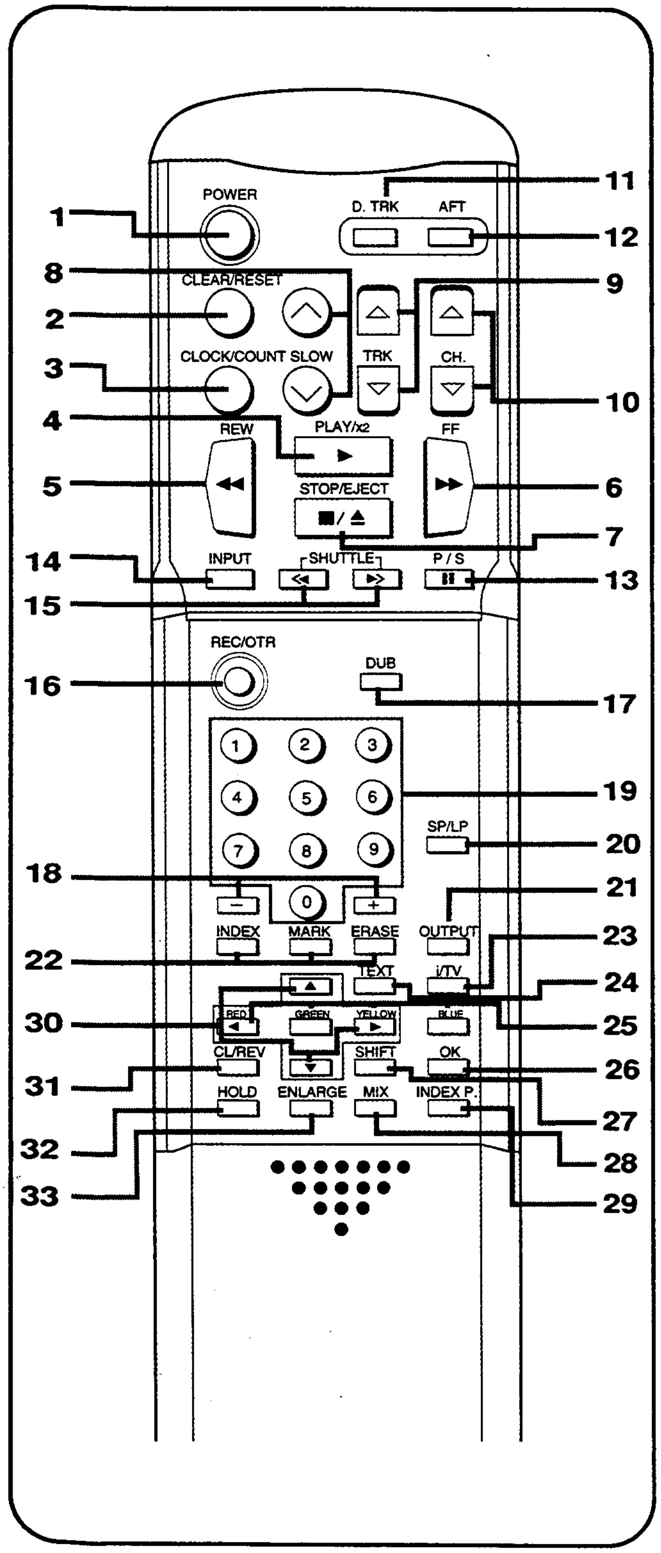
A 21 pin standardized AUDIO/VIDEO input/output socket for AV connection to a stereo TV equipped with the same type of the connector.

8 ATTENUATOR SWITCH

If the VCR is used as below conditions, this swith "ON" position, then you'll enjoy good TV screen.

NORMAL	ATTENUATOR SWITCH"ON"
Too many channel are received with your antenna, then any noise or saturation happens TV screen.	If you select this switch "ON" position, noise or saturation will be reduced.
Some channels are received strongly in UHF band, then any noise or saturation happens TV screen.	If you select this switch "ON" position, noise or saturation will be reduced.

1-4-4. REMOTE CONTROL


POWER
D. TRK
AFT
CLEAR/RESET
CLOCK/COUNT
SLOW
TRK
CH.
REW
PLAY/x2
FF
STOP/EJECT
INPUT
SHUTTLE
P / S
REC/OTR
DUB
1
2
3
4
5
6
7
8
9
0
SP/LP
INDEX
MARK
ERASE
OUTPUT
TEXT
i/TV
RED
GREEN
YELLOW
BLUE
CL/REV
SHIFT
OK
HOLD
ENLARGE
MIX
INDEX P.
1
2
3
4
5
6
7
8
9
10
11
12
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33

1 POWER/TIMER BUTTON

Press to turn VCR on or off.
Press while in the timer programming mode to engage the timer standby mode.

2 CLEAR/RESET BUTTON

Use to reset the counter to $0^{H}00^{M}00^{S}$ or to clear memorized channel.

3 CLOCK/COUNTER/REMAIN BUTTON

Press to switch between present time, tape counter and time remaining in the multifunction display.

4 PLAY (PLAY X2) BUTTON

5 REW (REWIND/REVERSE PICTURE SEARCH) BUTTON

6 FF (FAST FORWARD/FORWARD PICTURE SEARCH) BUTTON

7 STOP/EJECT BUTTON

Press to stop the tape during playback, recording, rewind or fast-forward.
Press to take out cassette tape in STOP mode.

8 SLOW/SPEED Λ ,V BUTTONS

- Press slow Λ ,V to see slow motion picture.
- Press the slow Λ to see the faster than slow motion picture.
- Press the slow V to see the slower than slow motion picture.

9 TRACKING △ , ▽ BUTTONS

Tracking can be adjusted manually by pressing the TRACKING △ or △ button on the remote control. The VCR's automatic tracking is turned off whenever you press the TRACKING △ or ▽ button.

- During slow-motion playback, it is normal to see some streaks (noise bars) in the picture. If the streaks interfere with some pictures on the TV screen, press the TRACKING △ or ▽ button to move the streaks up or down.

10 CHANNEL △, ▽ (AV/AUX SELECT) BUTTONS

Press to select the channel you wish to record or view on TV. Also select AV or AUX input.

11 D. TRK (DIGITAL TRACKING)

If you press one of the manual TRACKING buttons on the remote control, the automatic tracking feature is turned off. Press the DIGITAL TRACKING button on the remote control to turn the VCR's automatic tracking feature back on.

12 AFT (AUTO FINE TUNING) BUTTON

In manual tuning mode press this button to tune better picture automatically.
Then, AFT is displayed on TV screen.

13 P/S BUTTON

- Press to stop the tape temporarily during playback or recording and to view the still picture.
- In still mode, press to advance one frame at a time.

14 INPUT BUTTON

Select recording signal from the tuner or front AUX or 21 Pin Audio/Video in jack or simulcast.

15 SHUTTLE <◀, ▶> BUTTONS

Press to search for a specified segment at variable speeds.

16 REC/OTR BUTTON

Press once to start recording. (during 1 sec)
Press twice to engage One Touch Recording mode.

17 DUB BUTTON

When in the Still mode, press to start audio dubbing stand by.

18 +, - BUTTONS

- In still mode, adjust this control to minimize vertical shaking on the TV screen.
- Press these buttons for MFT function.

19 10 KEY BUTTONS (0 through 9)

Select any position channel number.
These buttons are used for various inputs in teletext mode.
Select INDEX NO in INDEX SEARCH mode.

20 SP/LP BUTTON

Press this button to select tape speed you wish to record.

21 OUTPUT SELECT BUTTON

For selectiong the audio output signals from the AUDIO OUTPUT terminals (L-CH or R-CH).

22 VISS (VHS Index Search System) BUTTONS

INDEX : Press to engage the INDEX Search mode.
MARK : While in the playback or recording mode, press to set the index signals onto the tape.
ERASE : Press while in the playback mode to erase the index signals.

23 i/TV BUTTON

Switches to the screen dialog (information page) and back to the TV picture.

24 TEXT BUTTON

Press TEXT button to see teletext screen. The VCR changes to DIRECT SELECTION screen, if press TEXT button at teletext screen of TOP system.

25 ◀ (RED), ▶ (YELLOW), GREEN, BLUE BUTTONS

Use buttons to select and confirm functions.
In teletext mode, select pages.

26 OK BUTTON

Use to select the text programming of recordings and confirm data selected by users.

27 SHIFT BUTTON

Press this button to go to the next step while you are doing station name setting, text page setting.

28 MIX BUTTON

Press this button when you want to check what is your channel in the TV broadcasting during teletext mode.

29 INDEX P. (INDEX PAGE) BUTTON

Press this button to select the index-page.
This page indicates the contents of teletext pages.

30 ◀ (RED), ▲, ▼, ▶ (YELLOW), BUTTONS

Use buttons for moving the cursor during text programming. For selecting various functions.

31 CL/REV BUTTON

Press this button to make the "hidden" information visible. Press once more and the information is hidden again. Also press this button to clear Timer Program.

32 HOLD BUTTON

If a teletext page takes up more space than is available on the TV screen, this teletext page will remain on the screen until you press the HOLD button again.
Once again the pages will be turned over automatically.

33 ENLARGE BUTTON

Enlarging the character size is done by repeatly pressing the ENLARGE button.

1-5. REPLACEMENT PROCEDURE FOR LEADLESS (CHIP) COMPONENT

※ The following procedures are recommended for the replacement of the leadless components used in this unit.

1. Preparation for replacement

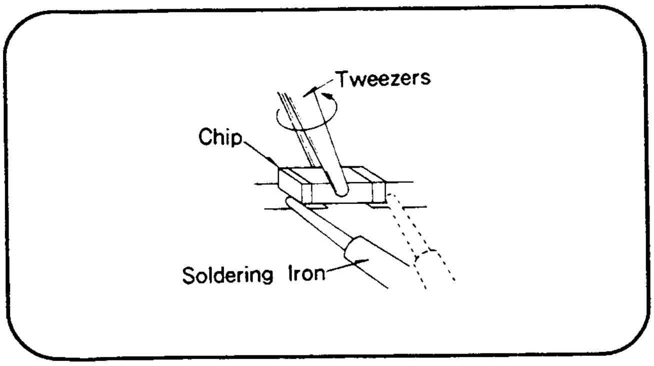
a. Soldering Iron
Use a pencil-type soldering iron that uses less than 30 watts.
b. Solder
Eutectic solder (Tin 63%, Lead 37%) is recommended.
c. Soldering time
Do not apply heat more than 4 seconds.
d. Preheating
Leadless capacitor must be preheated before installation. (130° C~150° C, for about two minutes).

> **Note :**
> a. Leadless component must not be reused after removal.
> b. Excessive mechanical stress and rubbing of the component electrode must be avoided.

2. Removing the leadless component (Resistors, Capacitors)

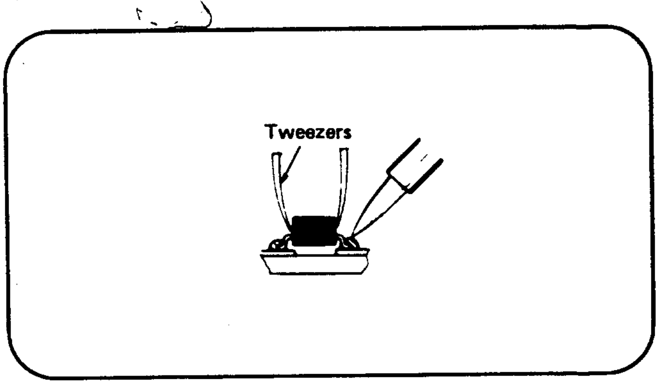
Grasp the leadless component body with tweezers and alternately apply heat to both electrodes. When the solder on both electrodes is melted, remove leadless component with a twisting motion.

> **Note :**
> a. Do not attempt to lift the component off the board until the component is completely disconnected from the board by a twising action.
> b. Take care not to break the copper foil on printed board.

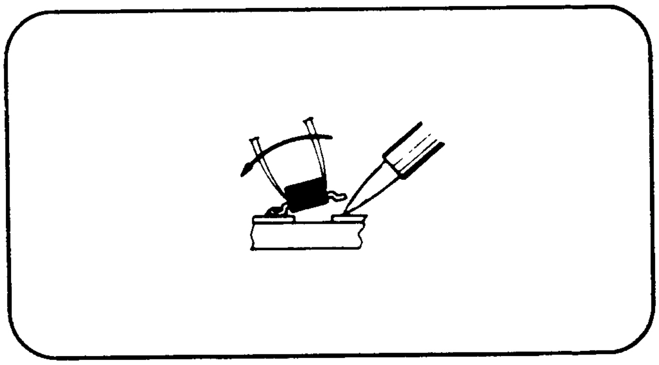


3. Removing the chip component (Transistors, Diodes)

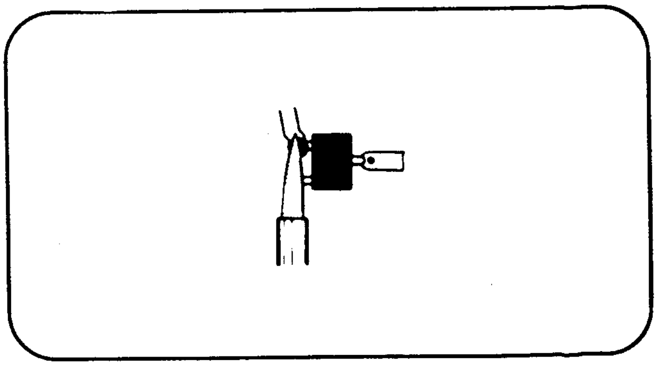
1) Melt the solder of one lead.



2) Lift the side of that lead upward.

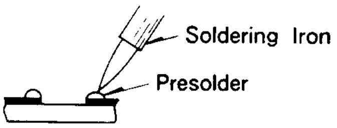


3) Simultaneously heat solder of the two remaining leads and lift part to remove.



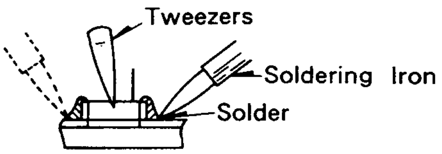
4. Installing the Leadless (chip) Component

1) Presolder the contact points of the circuit board.


Soldering Iron
Presolder

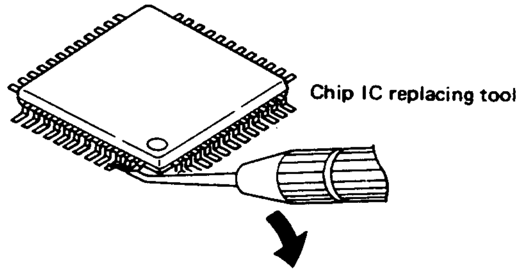
2) Press the part downward with tweezers and solder both electrodes as shown below.

Note :
Do not glue the replacement leadless component to the circuit board.


Tweezers
Soldering Iron
Solder

5. Removing of Flate ICs
(Recommendable manner)

1) For removing solder chips from IC's pins, use a solder remover or a wiry solder absorber.
2) Heat the IC's tips evenly by moving the chip IC replacing tool around them, and detach the IC's leads with a tool in the way of using a lever.
3) Do not reuse IC's removed once (Discard them).


Chip IC replacing tool

1-6. HOW TO REPLACE LEADLESS (CHIP) COMPONENT

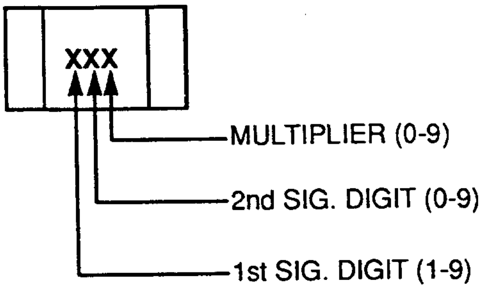
1. Check the followings before S.M.D Troubleshooting

- Cracked or Chipped Component Body
- Cracked or Separated Solder Joints
- Peeling end Terminations or Fractured Leads
- Rejection of Solder from Copper Pads or Component
- Foreign Matter on Copper Pads
- Solder Bridges

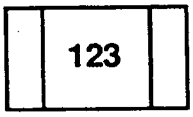
2. S.M.D (Surface Mounted Devices) Identification

1) Chip Resistor Identification

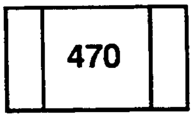
※ Standard Chip Resistor Code


XXX
MULTIPLIER (0-9)
2nd SIG. DIGIT (0-9)
1st SIG. DIGIT (1-9)

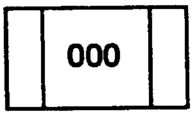
Examples



= 12 x 10^3(1000) = 12000 Ω
= 12K Ω



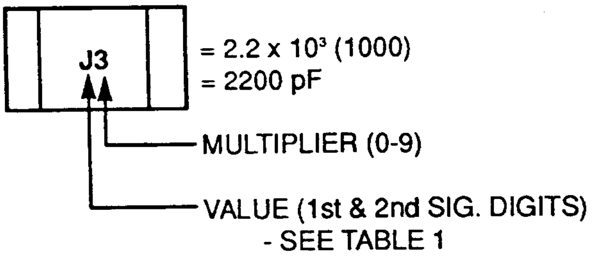
= 47 x 10^0 (1) = 47 Ω



= CHIP JUMPER = 0 Ω

2) Chip Capacitor Identification

※ Standard Two Place Code


J3
MULTIPLIER (0-9)
VALUE (1st & 2nd SIG. DIGITS)
- SEE TABLE 1

= 2.2 x 10^3 (1000)
= 2200 pF

Examples

S2 = 4.7 x 100 = 470 pF

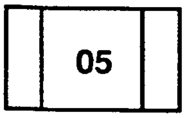
b0 = 3.5 x 1.0 = 3.5 pF

VALUE (33 VALUE SYMBOLS) - UPPER AND LOWER CASE LETTERS					MULTIPLIER
A — 1.0	H — 2.0	b — 3.5	f — 5.0	X — 7.5	0 = x 1.0
B — 1.1	J — 2.2	p — 3.6	T — 5.1	t — 8.0	1 = x 10
C — 1.2	K — 2.4	Q — 3.9	U — 5.6	Y — 8.2	2 = x 100
D — 1.3	a — 2.5	d — 4.0	m — 6.0	y — 9.0	3 = x 1000
E — 1.5	L — 2.7	R — 4.3	V — 6.2	Z — 9.1	4 = x 10000
F — 1.6	M — 3.0	e — 4.5	W — 6.8		5 = x 100000 etc.
G — 1.8	N — 3.3	S — 4.7	n — 7.0		

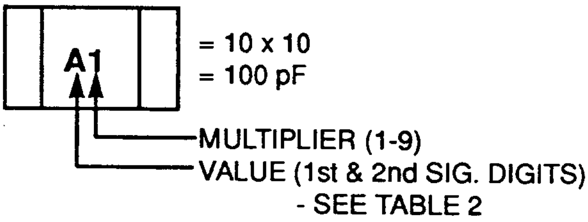
----- TABLE 1 -----

※ Alternate Two Place Code

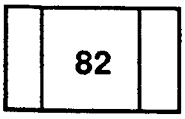
- Values below 100 pF - Value Read Directly
- Values 100 pF and above - Letter / Number Code



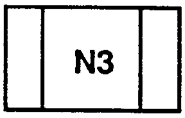
= 5 pF


A1
MULTIPLIER (1-9)
VALUE (1st & 2nd SIG. DIGITS)
- SEE TABLE 2

= 10 x 10
= 100 pF



= 82 pF

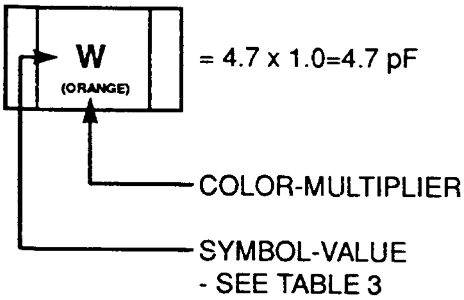


= 33 x 1000
= 33000 pF
= 0.33 uF

VALUE (24 VALUE SYMBOLS) - UPPERCASE LETTERS ONLY					MULTIPLIER
A — 10	F — 16	L — 27	R — 43	W — 68	1 = x 10
B — 11	G — 18	M — 30	S — 47	X — 75	2 = x 100
C — 12	H — 20	N — 33	T — 51	Y — 82	3 = x 1000
D — 13	J — 22	P — 36	U — 56	Z — 91	4 = x 10000
E — 15	K — 24	Q — 39	V — 62		5 = x 100000 etc.

----- TABLE 2 -----

※ Standard Single Place Code


W
(ORANGE)
COLOR-MULTIPLIER
SYMBOL-VALUE
- SEE TABLE 3

= 4.7 x 1.0=4.7 pF

Examples

R (Green) = 3.3 x 100 = 330 pF

7 (Blue) = 8.2 x 1000 = 8200 pF

VALUE (33 VALUE SYMBOLS) - UPPER AND LOWER CASE LETTERS					MULTIPLIER
A — 1.0	H — 1.6	N — 2.7	V — 4.3	3 — 6.8	ORANGE = x 1.0
B — 1.1	I — 1.8	O — 3.0	W — 4.7	4 — 7.5	BLACK = x 10
C — 1.2	J — 2.0	R — 3.3	X — 5.1	7 — 8.2	GREEN = x 100
D — 1.3	K — 2.2	S — 3.6	Y — 5.6	9 — 9.1	BLUE = x 1000
E — 1.5	L — 2.4	T — 3.9	Z — 6.2		VIOLET = x 10000
					RED = x 100000

----- TABLE 3 -----

1-7. CLEANING AND LUBRICATION

1-7-1. CLEANING TAPE MECHANISM

Periodic cleaning is necessary to insure continued excellent performance of the tape mechanism. To clean the following parts, patch and solvent are available.

1. Capstan shaft.
2. All tape guide posts.
3. Clitch pulley.
4. Pinch roller.
5. Belt capstan.
6. Capstan motor pulley.

1-7-2. CLEANING OF ROTATING & STATIONARY HEADS

To clean video heads, full erase head, audio/control (A/C) head we recommend to use head cleaning kit and solvent.

> Note : When cleaning video heads, move the cleaning stick in the direction of head rotation. Wiping in a vertical direction may damage the heads.

Press a chamois cloth which has been dipped in cleaning fluid lightly against the rotating cylinder assembly, then do the cleaning by slowly rotaing upper cylinder ass'y by hand.

> Note : Never try to clean by using the motor to turn the cylinder ass'y.

1-7-3. LUBRICATING TAPE MECHANISM

The tape transport mechanism is properly lubricated at the factory.
In normal use cycles, and with average environmental conditions, additional lubrication should not be required during the first year of operation.

Depending on the frequency of use and environmental conditions, periodic lubrication may be required.
When relubricating, remove old lubricant first, then sparingly apply new lubricant.(Excessive lubricant may be transferred to other assemblies causing malfunction).

Use grease on the following parts every 1,000 hours of operations. (See exploded view for location)

1. Between base pole assembly (L, R) and main base.
2. Gear escalator.
3. Gear E/J drive.
4. Gear loading L, R.
5. Slide main.
6. Lever tension control.
7. Lever shift.

Oil may be required for the following parts after 1,000 hours of operation.(See exploded view for location)

Main base
1. Arm tension molding.
2. Shaft reel disk L, R molding.
3. Shaft gear relay T, S1, S2, S3 molding.
4. Shaft clutch.
5. Shaft gear review.

Other parts which are not listed above do not require lubrication, except when parts are replaced.
Use appropriate oil or grease as indicated on exploded view.

1-8. ABBREVIATIONS

X2 : Double
4.43MHz : Color Sub Carrier

ACC : Automatic Color Circuit
ACK : Automatic Color Killer
ADD : Adder
AFC : Automatic Frequency Control
AFT : Automatic Fine Tuning
AGC : Automatic Gain Control
ALC : Automatic Level Control
AMP : Amplifier
APC : Automatic Phase Control
AUX : Auxiliary

BATT : Battery
BD : Burst Deemphasis
BE : Burst Emphasis
BH : Power Supply for Selecting VHF High Band
BL : Power Supply for Selecting VHF Low Band
BPF : Band Pass Filter

C.FG : Capstan Frequency Generator
C.SYNC : Composite Sync
CAFC : Capstan Auto Frequency Control
CAPC : Capstan Auto Phase Control
CATV : Cable TV
CAR : Carrier
CAP : Capstan
CCD : Charge Coupled Device
CH : Channel
CHAR. : Character
CHROMA : Chrominance
CM : Capstan Motor
COMP : Comparator
CST : Cassette
C-ERR : Capstan Error
CTL : Control
C.PG : Capstan Pulse Generator
CUR.EMPH : Current Emphasis

D.FG : Drum Frequency Generator
D.O.C : Drop Out Compensator
D.PG : Drum Pulse Generator
D/A : Digital-to-Analog
D/C : Dark/Clip
D.AFC : Drum Auto Frequency Control
D.APC : Drum Auto Phase Control

DE-EMPH : De-Emphasis
DET : Detector
DEV : Deviation
DLYD : Delayed
DM : Drum Motor
DEMOD : Demodulator
D.D : Direct Drive

E-E : Electronic-to Electronic
EMPH : Emphasis
ENV : Envelope
EQ : Equalizer
EPS : Easy Programming System

F.ADV : Frame Advance
F-V : Frequency to Voltage Converter
F.FWD : Fast Forward
FH : Frequency Horizontal
FG : Frequency Generator
FM : Frequency Modulator
FSC : Frequency Sub Carrier
FWD : Forward
FC : Frequency Center
FL : Frequency Low

GEN : Generator
GND : Ground

HPF : High Pass Filter

IF : Intermediate Frequency
IR : Infrared Receiver

LED : Light Emitting Diode
LIM : Limiter
LPF : Low Pass Filter
LUMA : Luminance
LCD : Liquid Crystal Display
LNR : Linear

MIX : Mixer
MM : Monostable Multivibrator
MTS : Multi Channel TV Sound
MEM : Memory
MFT : Manual Fine Tuning

N.C : No Connection

OSC : Oscillator
OTR : One Touch Recording
OSP : On Screen Programme
OSD : On Screen Display

PB : Play Back
P.C : Power Control
PG : Pulse Generator
PIF : Picture Intermediate Frequency
PLL : Phase Lock Loop
PRG : Programme
PWM : Pulse Width Modulation
PWR : Power
P/S : Pause/Still
PD : Power Detector

REG : Regulator
REC : Record
REC.SAF : Record Safety
REW : Rewind
RF : Radio Frequency
REV : Reverse
RECT : Rectifier
REF : Reference

SC : Simul-Cast
SC : Sub-Carrier
SCK : Shift Clock
SDA : Serial Data
SIF : Sound Intermediate Frequency
S.M.D : Surface Mounted Devices
S.M.P.S : Switching Mode Power Supply
SP : Standard Play
SW25Hz : Head Switching Pulse
SYNC : Synchronizing Signal
SYSCON : System Control
STB : Strobe
SI : Serial Input
SO : Serial Output
SW : Switch

TP : Test Point
TRK : Tracking

UL : Unloading

VT : Voltage Tuning
VLP : Vertical Lock Pulse
V-REF : Voltage Reference
V-SYNC : Vertical Sync
VCO : Voltage Controlled Oscillator
VCR : Video Cassette Recorder
VIF : Video Intermediate Frequency
VPS : Video Programming System
VHS : Video Home System
VXO : Voltage Controlled Crystal Oscillator
VSS : Voltage Super Source
VISS : VHS Index Search System

W/C : White /Clip
W/D : White/Dark

Y/C : Luminance/Chrominance

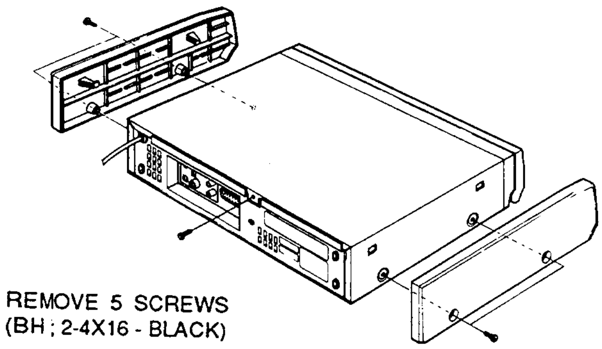
uP : Microprocessor

2. DISASSEMBLY

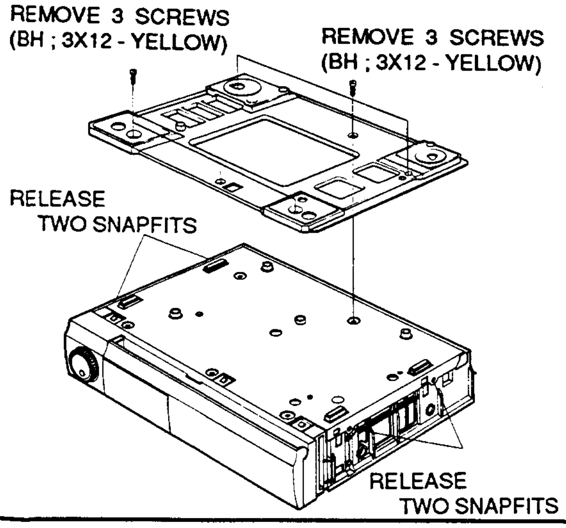
2-1. INSTRUMENT DISASSEMBLY

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the illustrations. Reassemble in reverse order.

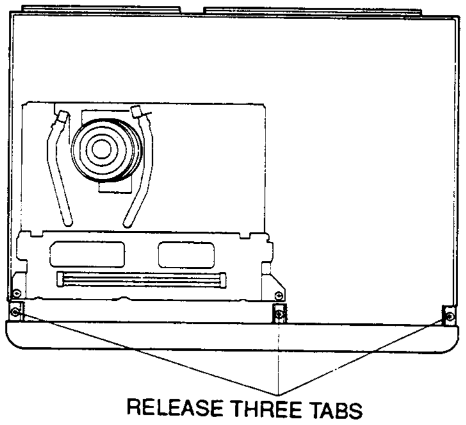
2-1-1. Top Cabinet Removal


REMOVE 5 SCREWS
(BH ; 2-4X16 - BLACK)

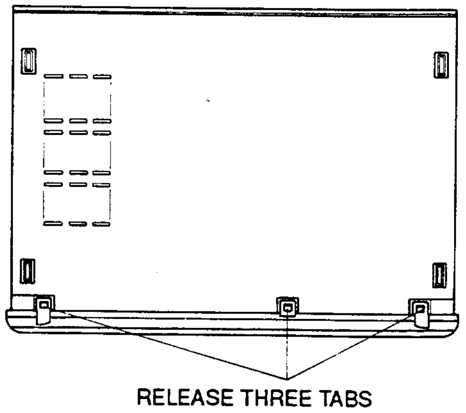
2-1-2. Bottom Cover Removal


REMOVE 3 SCREWS
(BH ; 3X12 - YELLOW)
REMOVE 3 SCREWS
(BH ; 3X12 - YELLOW)
RELEASE
TWO SNAPFITS
RELEASE
TWO SNAPFITS

2-1-3. Front Panel Removal


RELEASE THREE TABS

(Top View)


RELEASE THREE TABS

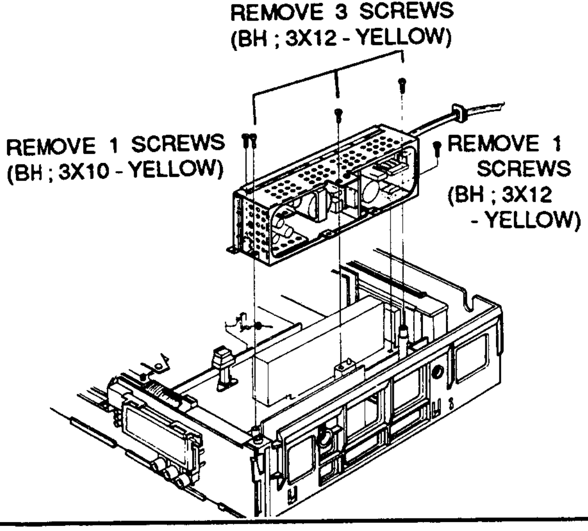
(Bottom View)

2-2. CIRCUIT BOARD DISASSEMBLY

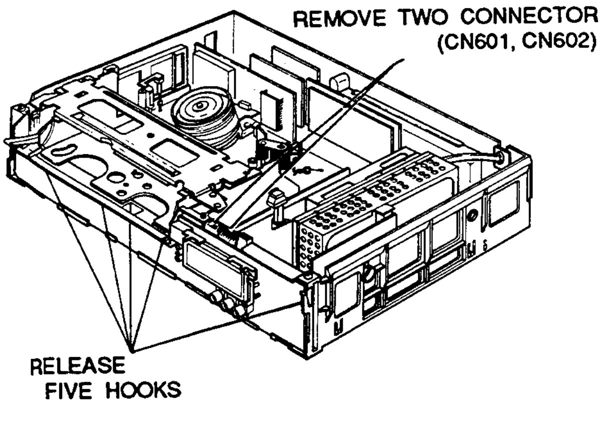
Note :

1. When removing chassis unit assembly, take extreme care not to damage the Main PCB front.
2. When reinstalling Deck on the Main PCB, take extreme care not to damage sensor.

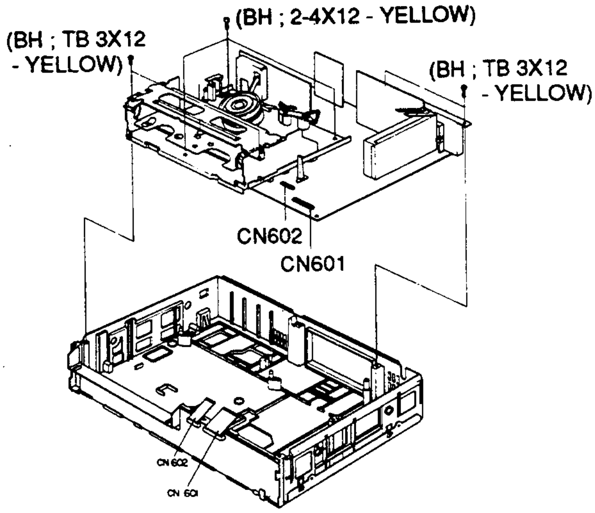
2-2-1. Regulator Ass'y Removal


REMOVE 3 SCREWS
(BH ; 3X12 - YELLOW)
REMOVE 1 SCREWS
(BH ; 3X10 - YELLOW)
REMOVE 1
SCREWS
(BH ; 3X12
- YELLOW)

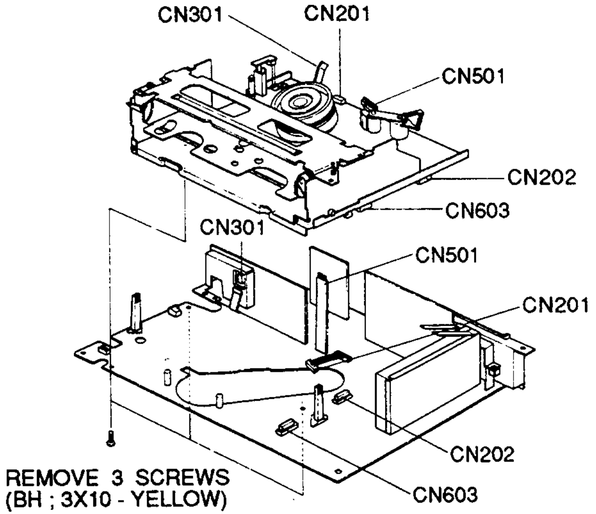
2-2-2. Function/Timer Circuit Board Removal


REMOVE TWO CONNECTOR
(CN601, CN602)
RELEASE
FIVE HOOKS

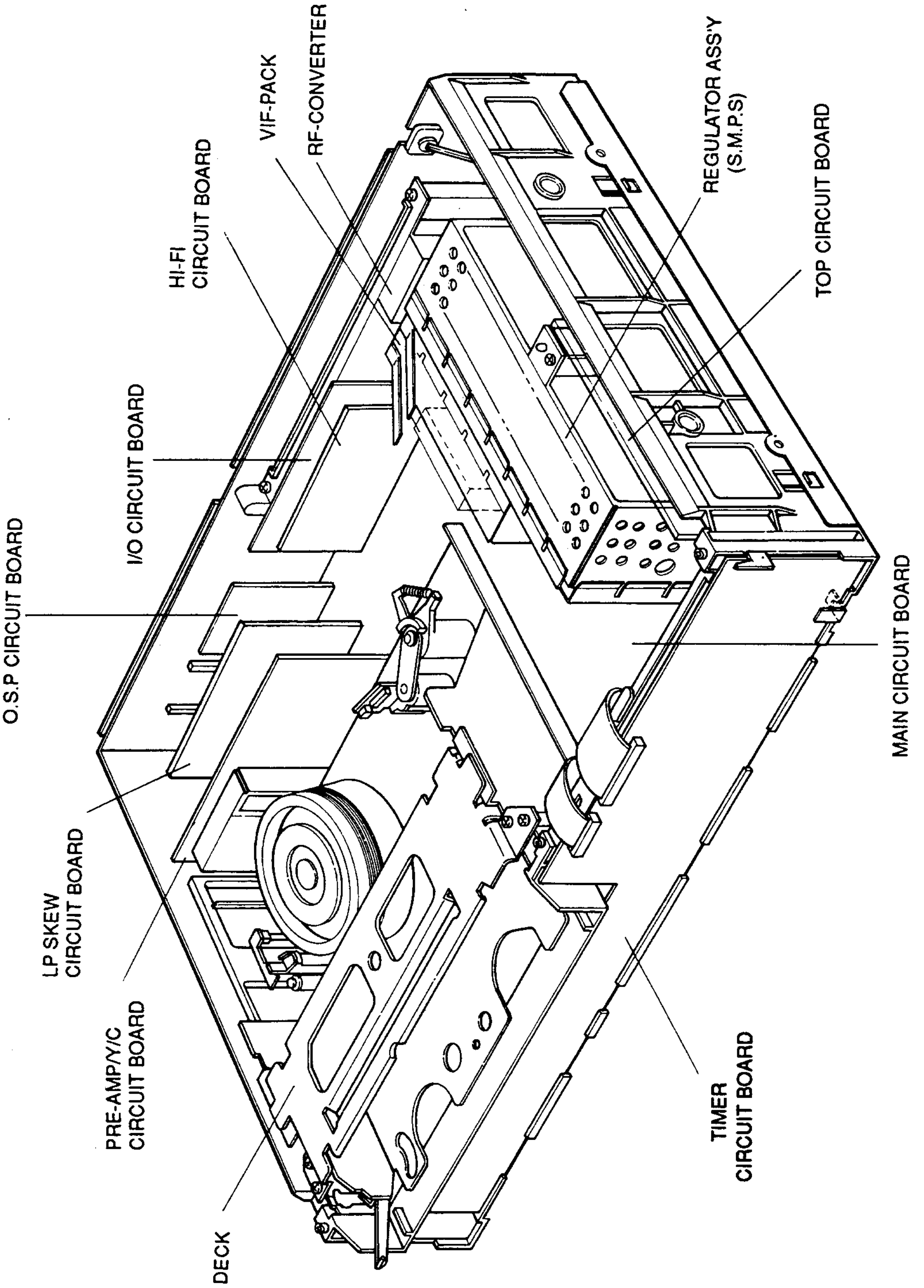
2-2-3. Chassis Unit Removal


(BH ; 2-4X12 - YELLOW)
(BH ; TB 3X12
- YELLOW)
(BH ; TB 3X12
- YELLOW)
CN602
CN601
CN602
CN 601

2-2-4. Main Circuit Board Removal


CN301
CN201
CN501
CN202
CN603
CN301
CN501
CN201
REMOVE 3 SCREWS
(BH ; 3X10 - YELLOW)
CN202
CN603

*** Circuit Boards Location**


O.S.P CIRCUIT BOARD
I/O CIRCUIT BOARD
HI-FI CIRCUIT BOARD
VIF-PACK
RF-CONVERTER
LP SKEW CIRCUIT BOARD
PRE-AMP/Y/C CIRCUIT BOARD
DECK
REGULATOR ASS'Y (S.M.P.S)
TOP CIRCUIT BOARD
MAIN CIRCUIT BOARD
TIMER CIRCUIT BOARD

2-3. TAPE TRANSPORT MECHANISM IDENTIFICATION

2-3-1. Top View

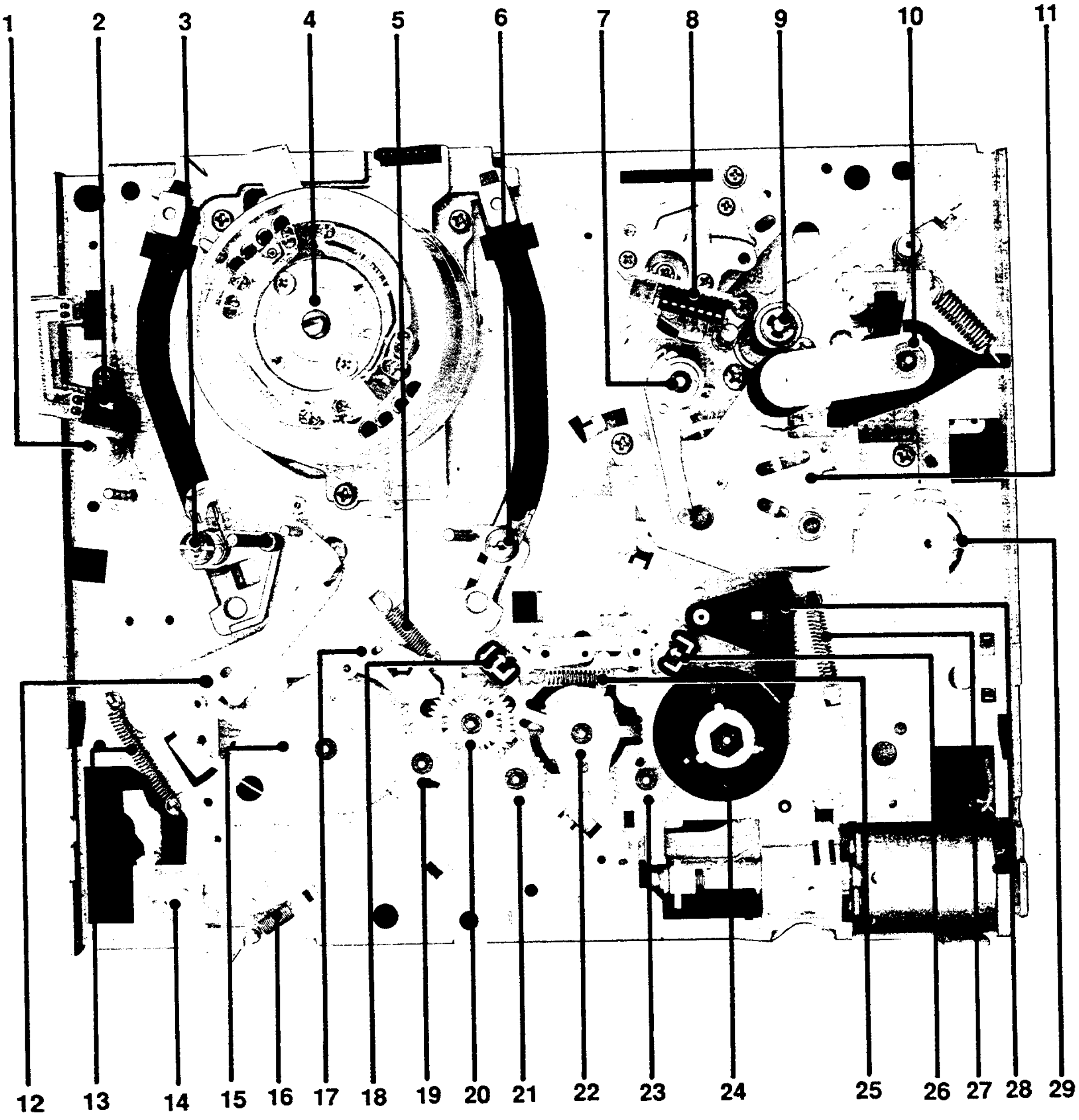


Fig. 1 Tape Transport Mechanism - Top View

1. SUPPLY ROLLER
2. F/E HEAD ASS'Y
3. P.B & G.R (L)
4. CYLINDER ASS'Y
5. S/P BRAKE SUB "L"
6. P.B & G.R (R)
7. REVIEW ARM ASS'Y
8. A/C HEAD ASS'Y
9. CAPSTAN SHAFT
10. PINCH ROLLER UNIT
11. UNIT DRIVE PINCH
12. ARM TENSION ASS'Y
13. SPRING TENSION
14. LEVER REC S/W
15. REEL DISK "L"
16. S/P RECORD S/W
17. BRAKE SUB "L"
18. BRAKE MAIN "L" ASS'Y
19. GEAR RELAY S3
20. GEAR RELAY S2
21. GEAR RELAY S1
22. IDLER SUB ASS'Y
23. GEAR RELAY "T"
24. REEL DISK "R"
25. S/P BRAKE MAIN
26. BRAKE MAIN "R" ASS'Y
27. S/P BRAKE SUB "R"
28. BRAKE SUB "R" ASS'Y
29. GEAR EJECT DRIVE

2-3-2. Bottom View

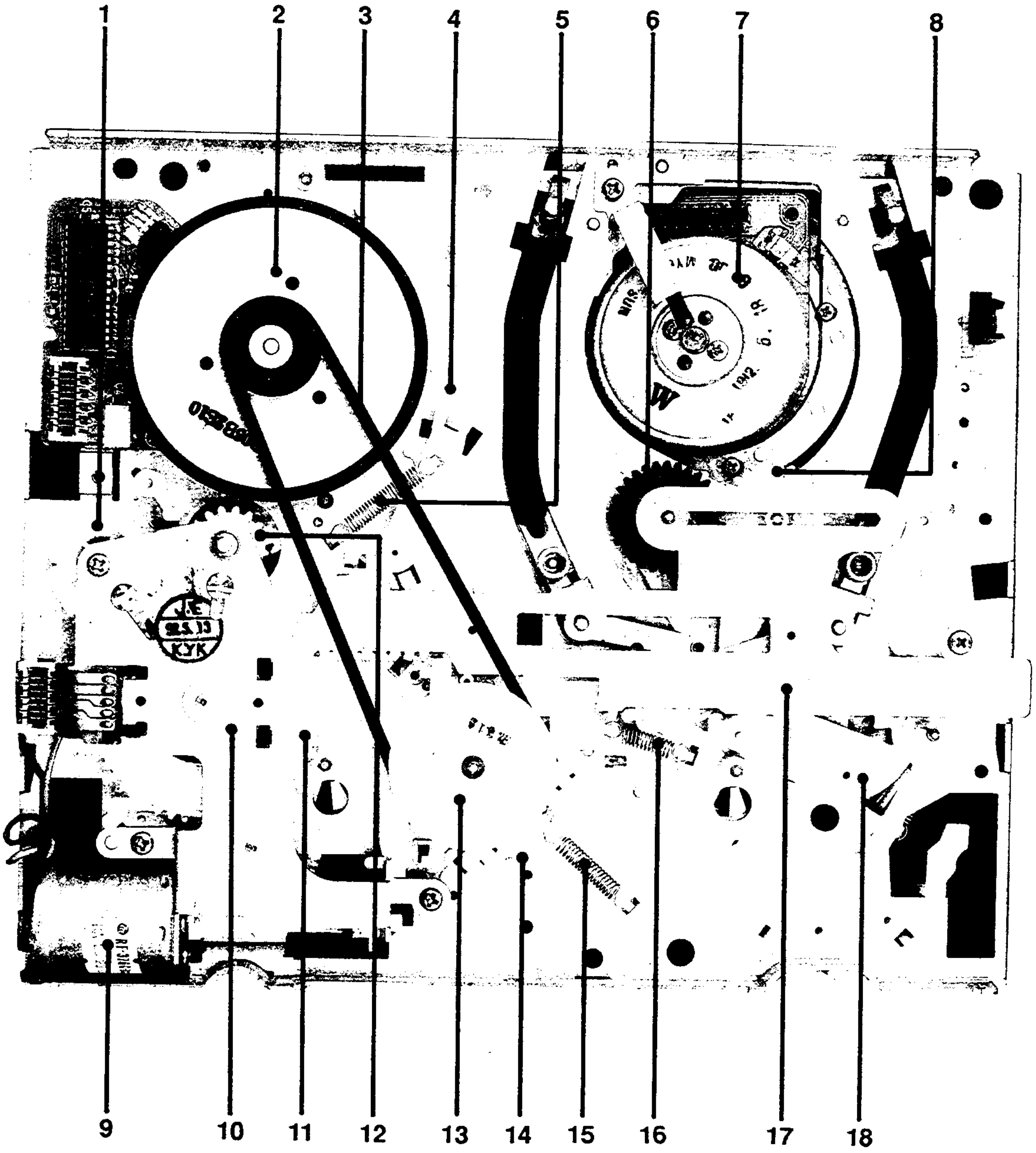


Fig. 2 Tape Transport Mechanism - Bottom View

1. GEAR EJECT DRIVE
2. MOTOR D/D CAPSTAN
3. BELT CAPSTAN
4. BRAKE D/D CAPSTAN
5. S/P BRAKE CAPSTAN
6. GEAR LOADING "R"
7. CYLINDER MOTOR
8. GEAR LOADING "L"
9. MOTOR LOADING
10. LOADING UNIT ASS'Y
11. GEAR MASTER
12. GEAR RELAY PINCH
13. CLUTCH ASS'Y
14. LEVER SHIFT
15. S/P BRAKE SUB "R"
16. S/P RELEASE BRAKE
17. SLIDE MAIN
18. LEVER TENSION CONTROL

2-4. HOUSING ASS'Y REMOVAL & REASSEMBLY

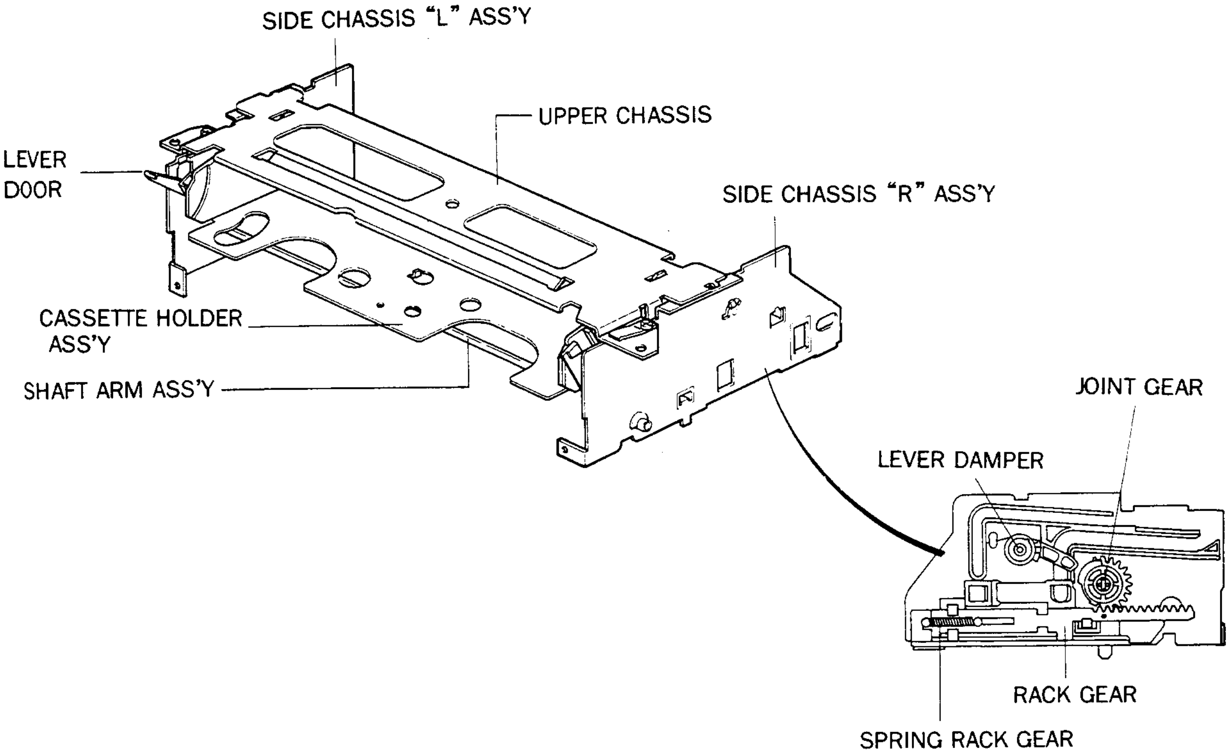

SIDE CHASSIS "L" ASS'Y
UPPER CHASSIS
LEVER DOOR
SIDE CHASSIS "R" ASS'Y
CASSETTE HOLDER ASS'Y
SHAFT ARM ASS'Y
JOINT GEAR
LEVER DAMPER
RACK GEAR
SPRING RACK GEAR

Fig. 3 Housing Ass'y Identification

2-4-1. Housing Ass'y Removal

1. Remove four (4) screws ①, ②.
2. Lift up the housing ass'y in the direction of arrow.

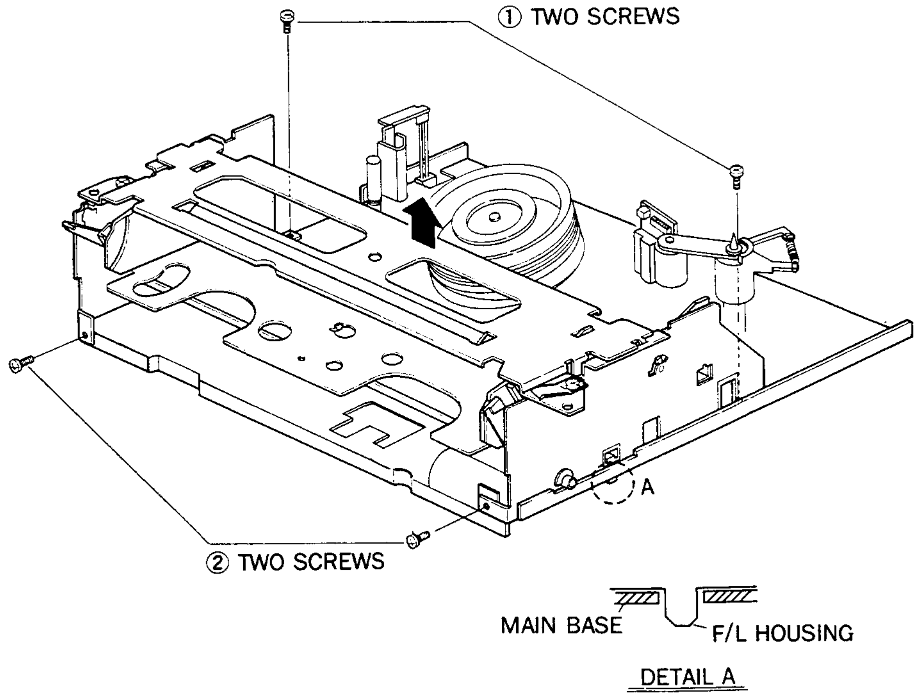

① TWO SCREWS
② TWO SCREWS
A
MAIN BASE
F/L HOUSING
DETAIL A

Fig. 4 Housing Ass'y Removal

2-4-2. Cassette Holder Ass'y & Side Chassis "L", "R" Removal

1. Remove two (2) screws ①.
2. Lift up the upper chassis ② and the cassette holder ass'y ③ in the direction of arrow (A).
3. Remove the side chassis "L", "R" ④, ⑤ from the shaft arm ass'y in the direction of arrows (B).

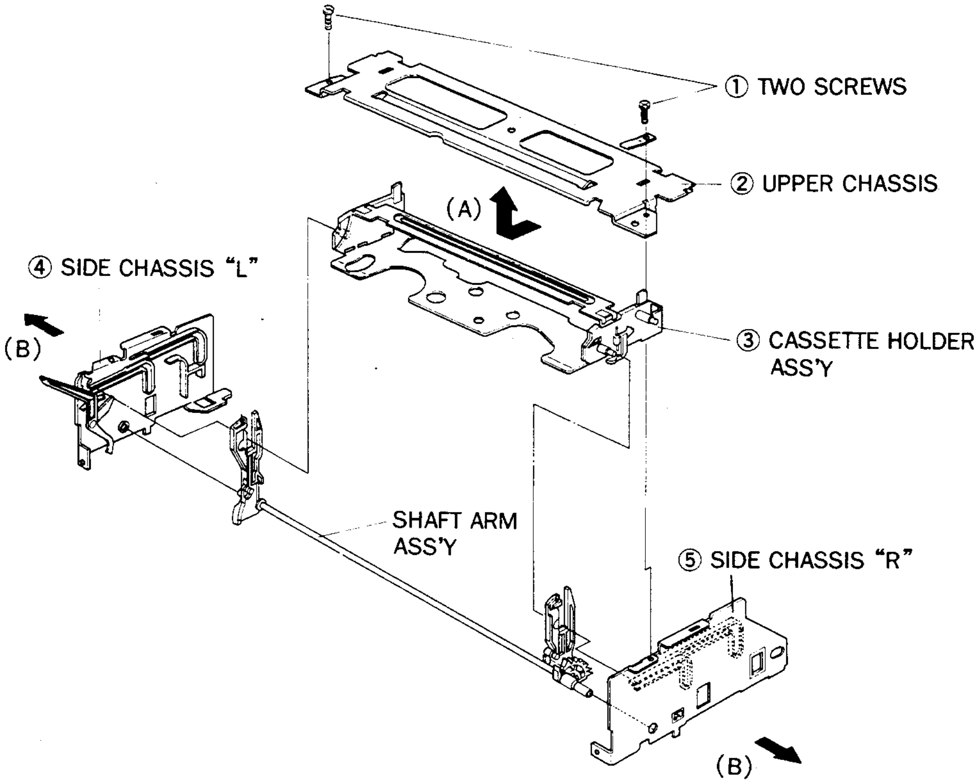

① TWO SCREWS
② UPPER CHASSIS
(A)
④ SIDE CHASSIS "L"
(B)
③ CASSETTE HOLDER ASS'Y
SHAFT ARM ASS'Y
⑤ SIDE CHASSIS "R"
(B)

Fig. 5 Cassette Holder Ass'y & Side Chassis "L", "R" Removal

2-4-3. Joint Gear & Rack Gear Removal

1. Pull the rack gear ① in the direction of arrow (A) to the end.
2. Remove one screw ② and then the joint gear ③.
3. Remove the rack gear ① toward arrow (B).

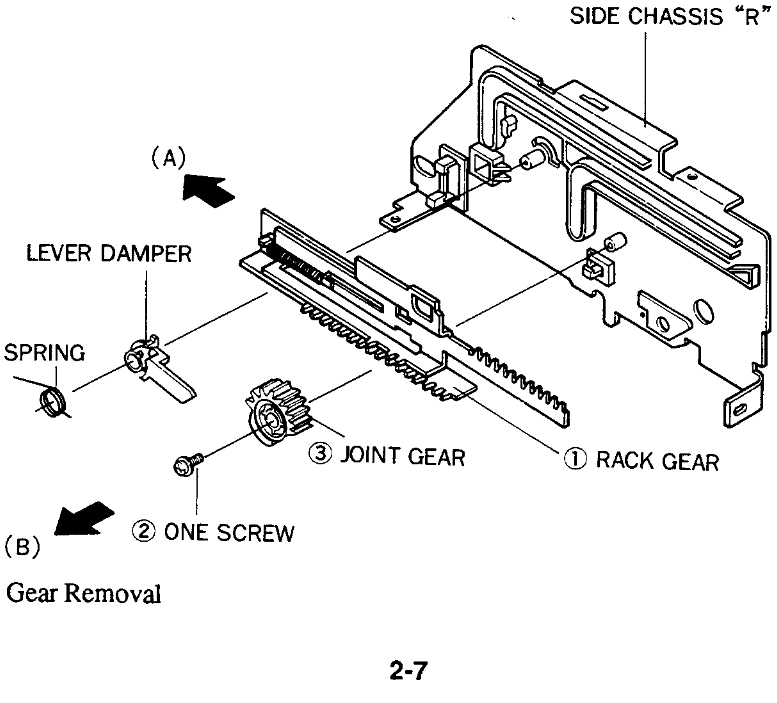

SIDE CHASSIS "R"
(A)
LEVER DAMPER
SPRING
③ JOINT GEAR
① RACK GEAR
(B)
② ONE SCREW

Fig. 6 Joint Gear & Rack Gear Removal

2-4-4. Reinstallation of Rack Gear and Joint Gear

Reinstallation and Timing of Rack Gear and Joint Gear

1. Assemble the rack gear ① to the side chassis "R".
2. Pull the rack gear ① in the direction of arrow to the end.
3. Install the joint gear so that the slot #1 of joint gear ② is aligned with the tooth #1 of rack gear ①.
4. Tighten one (1) screw with the joint gear.

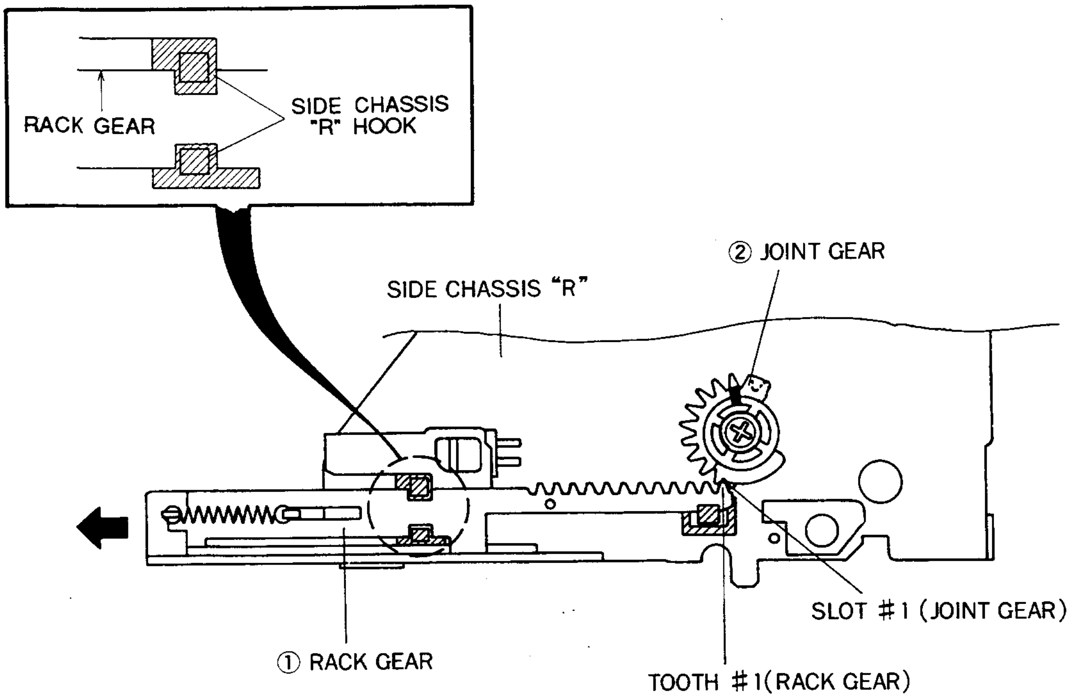

RACK GEAR
SIDE CHASSIS "R" HOOK
② JOINT GEAR
SIDE CHASSIS "R"
SLOT #1 (JOINT GEAR)
① RACK GEAR
TOOTH #1(RACK GEAR)

Fig. 7 Reinstallation and Timing of Rack Gear and Joint Gear

Timing Confirmation of Rack Gear and Joint Gear (Eject mode)

1. Push the rack gear ① in the direction of arrow to the end.
2. Make sure that the tooth #12 of joint gear ② and the Timing Point of rack gear ① are aligned correctly as shown in Fig. 8.

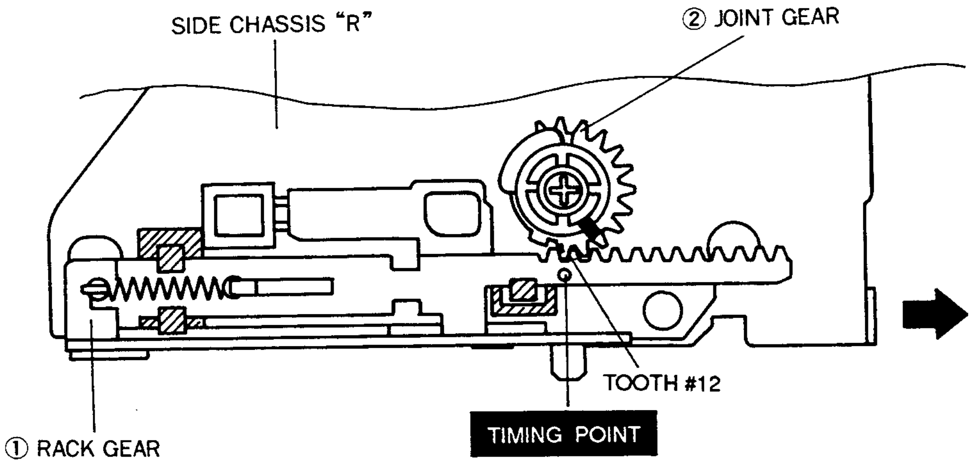

SIDE CHASSIS "R"
② JOINT GEAR
TOOTH #12
① RACK GEAR
TIMING POINT

Fig. 8 Timing Confirmation of Rack Gear and Joint Gear

2-4-5. Reassembly of Housing Ass'y

1. After pushing the rack gear in direction of arrow to the end, insert the pin of the arm gear into the hole of side chassis "R".
2. Align the slot #1 (arrow mark) of the arm gear ① with the tooth #3 of the joint gear ②.
   (Refer to timing in Fig. 9)
3. Install the side chassis "L" so that the shaft arm pin goes into the hole in the side chassis "L".
4. Turn the shaft arm to up-position and drop the cassette holder into the arm grooves.
5. Install the upper chassis and secure with two (2) screws.

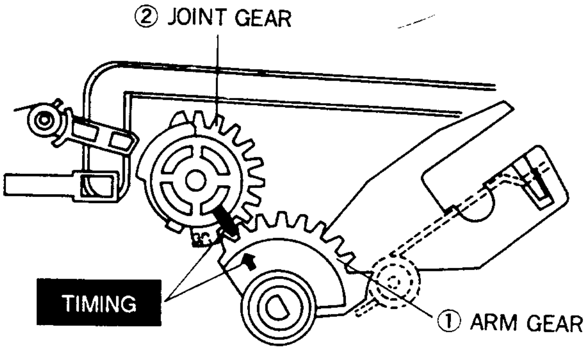

② JOINT GEAR
TIMING
① ARM GEAR

Fig. 9 Reassembly Joint Gear & Arm Gear

2-4-6. Reinstallation of Housing Ass'y & Deck Ass'y

Note : Make sure deck is in the eject position.

1. Assemble the housing ass'y while pushing the rack gear forward to align the slot #1 of gear eject drive ② and the tooth #1 of rack gear ①. (Refer to Detail A)

2. Install the housing ass'y and then tighten four (4) screws (See Fig. 4)

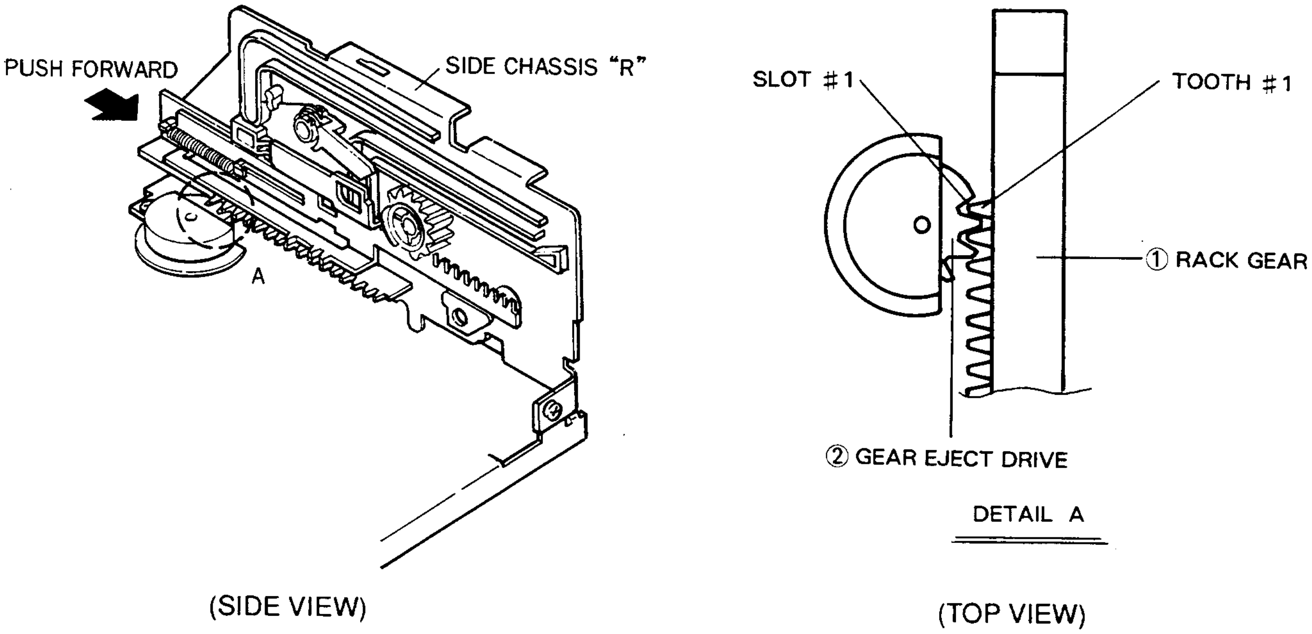

PUSH FORWARD
SIDE CHASSIS "R"
A
(SIDE VIEW)
SLOT #1
TOOTH #1
① RACK GEAR
② GEAR EJECT DRIVE
DETAIL A
(TOP VIEW)

Fig. 10 Reinstallation of Housing Ass'y

2-5. CYLINDER ASS'Y REMOVAL & REASSEMBLY

2-5-1. Cylinder Ass'y Removal from Main Base

1. Release the F.P.C cable ① from Pre-Amp PCB (CN301) and disconnect the lead connector ass'y ② from the cylinder PCB.
2. Remove three (3) screws ③ securing the base cylinder and the main base.
3. Lift the cylinder ass'y ④ in the direction of arrow.

CAUTION : Take extreme care when removing the cylinder ass'y. Do not touch the video head tips during servicing.

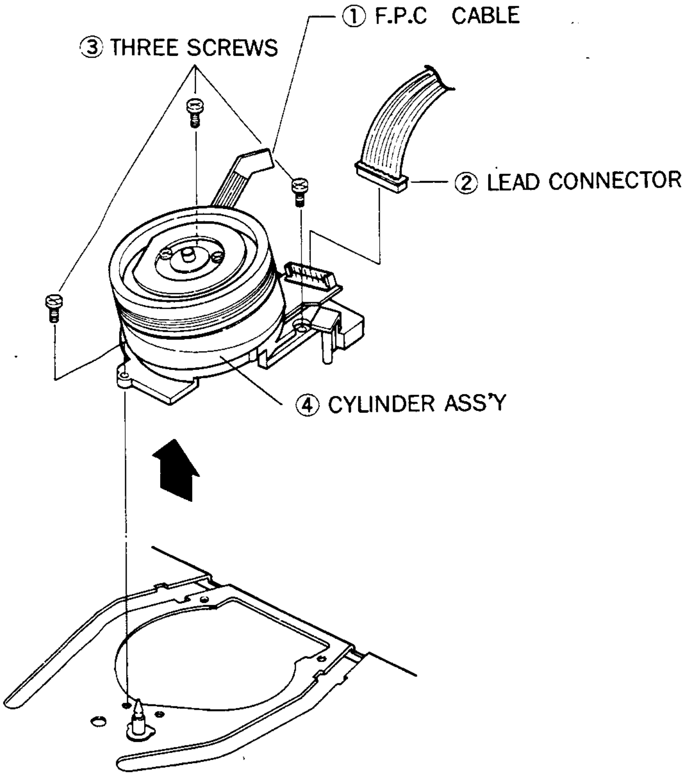

① F.P.C CABLE
③ THREE SCREWS
② LEAD CONNECTOR
④ CYLINDER ASS'Y

Fig. 11 Cylinder Ass'y Removal

2-5-2. Exploded View of Cylinder Ass'y

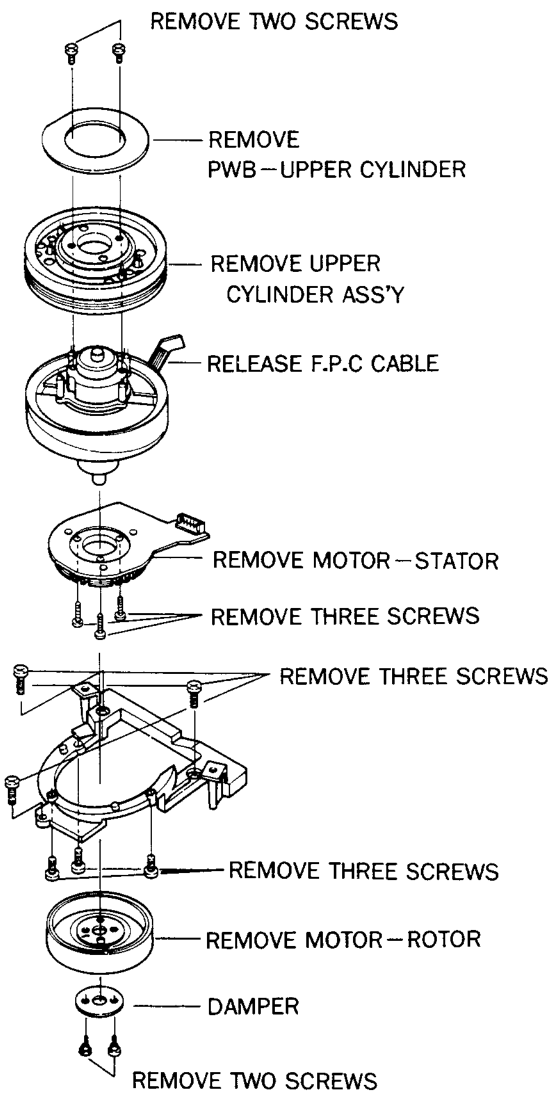

REMOVE TWO SCREWS
REMOVE
PWB-UPPER CYLINDER
REMOVE UPPER
CYLINDER ASS'Y
RELEASE F.P.C CABLE
REMOVE MOTOR-STATOR
REMOVE THREE SCREWS
REMOVE THREE SCREWS
REMOVE THREE SCREWS
REMOVE MOTOR-ROTOR
DAMPER
REMOVE TWO SCREWS

Fig. 12 Exploded View of Cylinder Ass'y

2-5-3. Upper Cylinder Ass'y Removal

1. Remove two (2) screws ① from the upper cylinder ass'y ③.
2. Unsolder the PWB-Upper cylinder ② from the upper cylinder ass'y ③ and remove the upper cylinder ass'y ③ from the cylinder ass'y. (See Fig. 14)

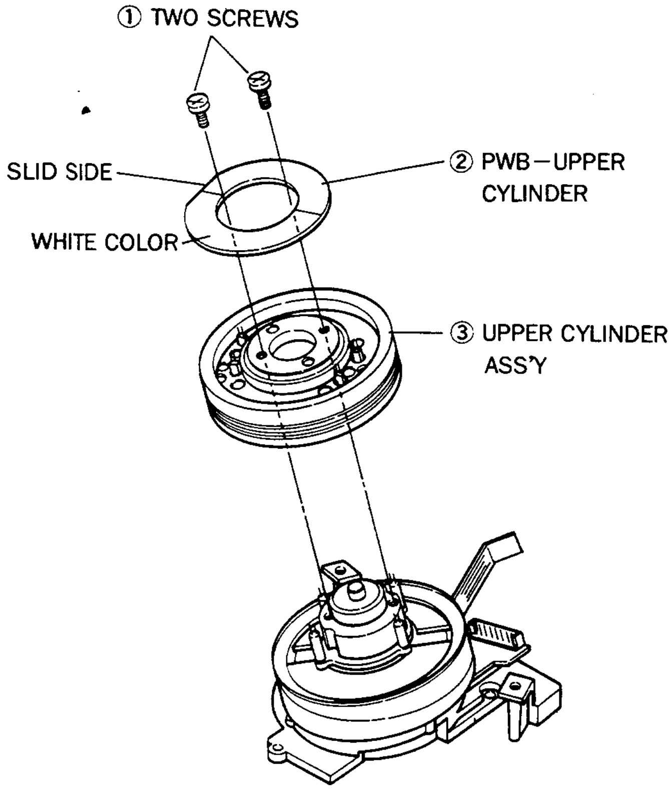

① TWO SCREWS
SLID SIDE
WHITE COLOR
② PWB—UPPER CYLINDER
③ UPPER CYLINDER ASS'Y

Fig. 13 Upper Cylinder Ass'y Removal

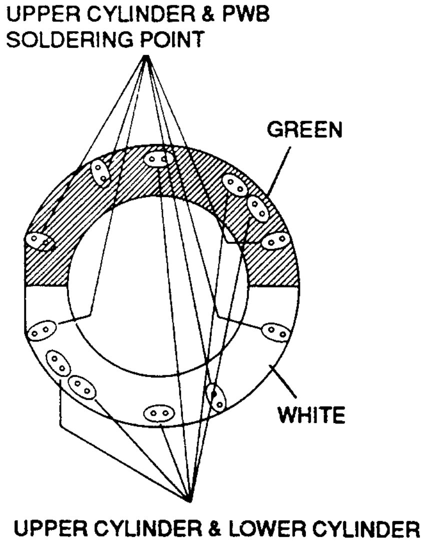

UPPER CYLINDER & PWB SOLDERING POINT
GREEN
WHITE
UPPER CYLINDER & LOWER CYLINDER SOLDERING POINT

Fig. 14 PWB Upper Cylinder Top View

2-5-4. Lower Cylinder Ass'y Removal

1. Remove three (3) screws ① from the base cylinder ②.
2. Lift up the lower cylinder ass'y ③ from the base cylinder ②.

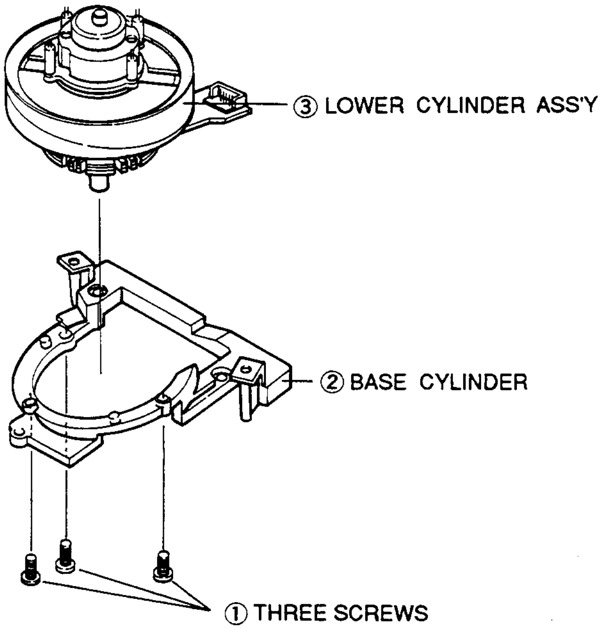

③ LOWER CYLINDER ASS'Y
② BASE CYLINDER
① THREE SCREWS

Fig. 15 Lower Cylinder Ass'y Removal

2-5-5. Cylinder Motor Removal

1. Remove three (3) screws ① from the base cylinder ②.
2. Remove two (2) screws ③ from the damper ④,then remove the damper ④ and the motor-rotor ⑤.
3. Remove three (3) screws ⑥ from the motor-stator ⑦ and take it out.

Note : Mark rotor position to insure correct phase orientation upon reinstallation.

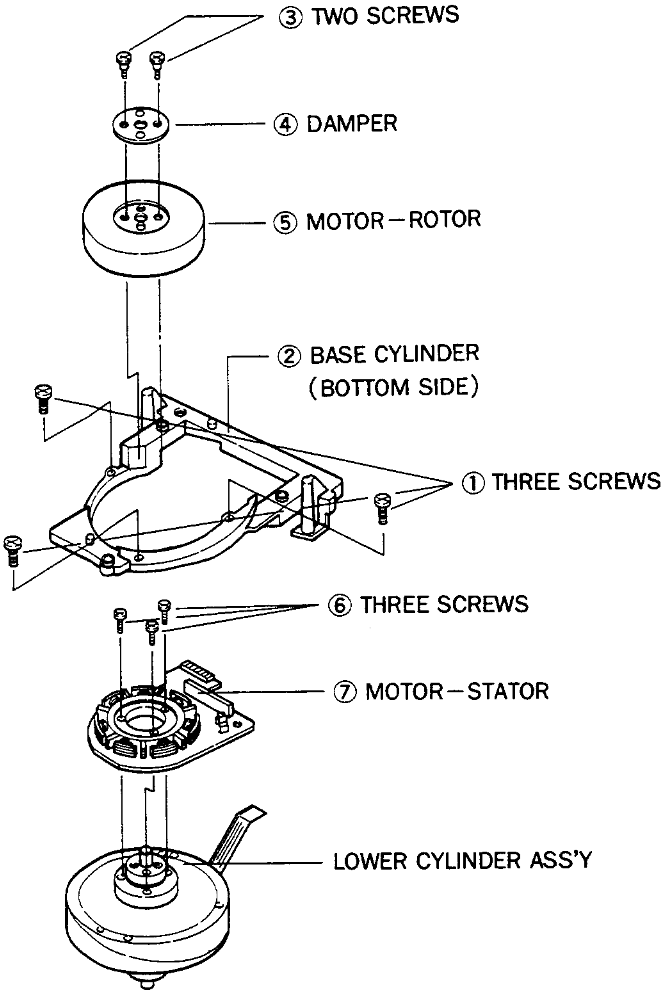

③ TWO SCREWS
④ DAMPER
⑤ MOTOR-ROTOR
② BASE CYLINDER
(BOTTOM SIDE)
① THREE SCREWS
⑥ THREE SCREWS
⑦ MOTOR-STATOR
LOWER CYLINDER ASS'Y

Fig. 16 Cylinder Motor Removal

2-5-6. Assembly of Lower Cylinder

1. Tighten three (3) screws with the motor-stator. (Refer to Fig. 16)
2. Reinstall the motor-rotor, damper and secure with two (2) screws. (Refer to Fig. 16)

Note : Make sure that the hole of bush cylinder on lower cylinder and the hole of motor rotor are aligned correctly as shown in Fig. 17.

3. Reinstall the lower cylinder to the base cylinder and secure with three (3) screws.

Note : Align two (2) base cylinder pin before reinstalling.

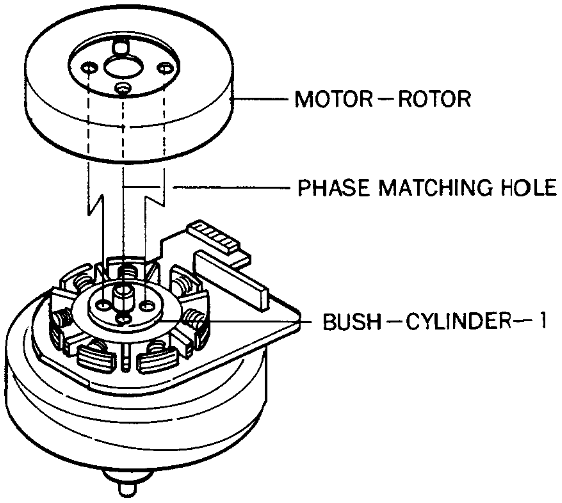

MOTOR-ROTOR
PHASE MATCHING HOLE
BUSH-CYLINDER-1

Fig. 17 Bush Cylinder -1 & Motor Rotor Timing

2-5-7. Assembly of Upper Cylinder

1. When installing the upper cylinder, make sure green color (CH1) goes to CH1 head tip position on lower cylinder.
2. Tighten two (2) screws on the upper cylinder. (Refer to Fig. 13)

Note : Timing of the upper cylinder PCB.

2-5-8. Assembly of Cylinder Ass'y

1. Reinstall cylinder ass'y on the main base.
2. Tighten three (3) screws securing the base cylinder and the main base.
3. Reconnect F.P.C cable to the Pre-Amp PCB and the lead connector ass'y to the bottom cylinder PCB.

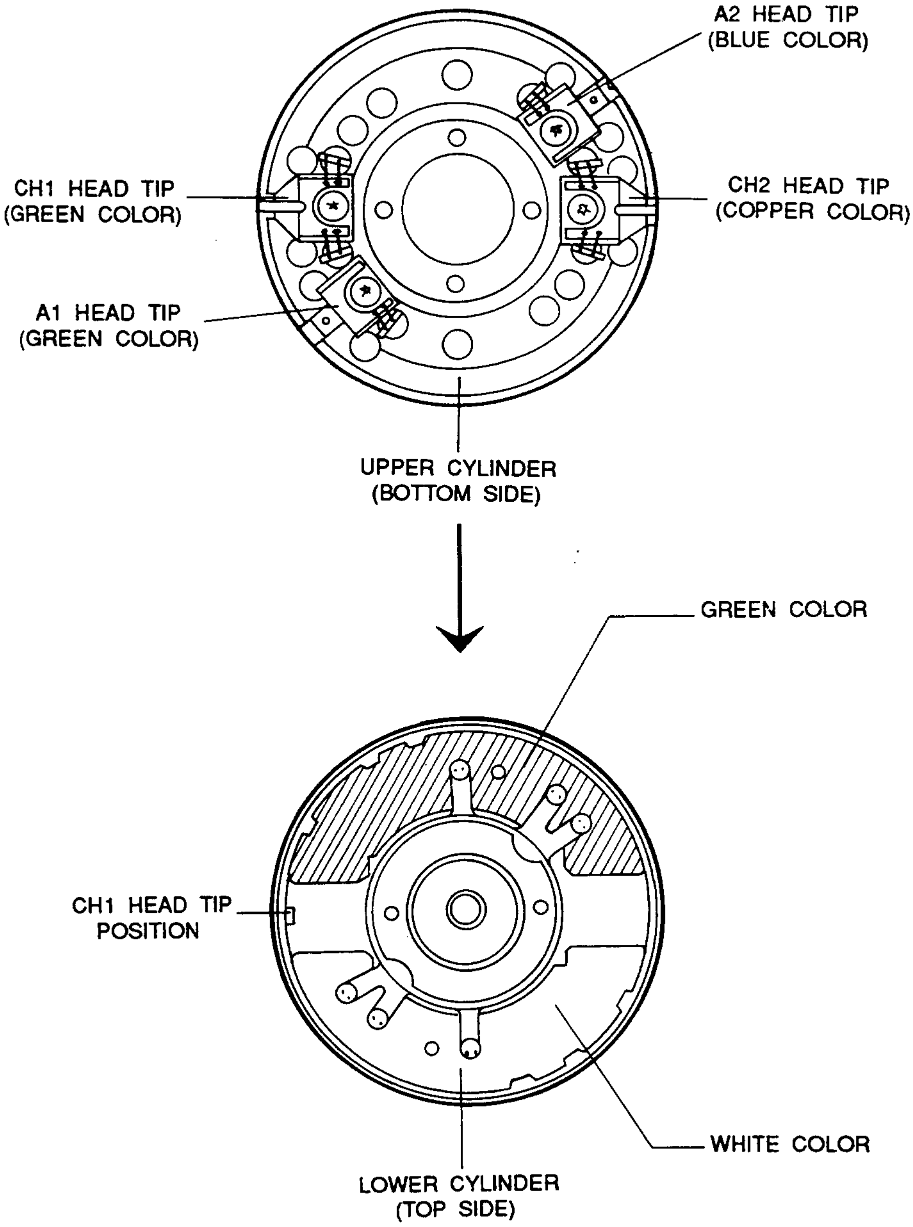

A2 HEAD TIP
(BLUE COLOR)
CH1 HEAD TIP
(GREEN COLOR)
CH2 HEAD TIP
(COPPER COLOR)
A1 HEAD TIP
(GREEN COLOR)
UPPER CYLINDER
(BOTTOM SIDE)
GREEN COLOR
CH1 HEAD TIP
POSITION
WHITE COLOR
LOWER CYLINDER
(TOP SIDE)

Fig. 18 Upper Cylinder Ass'y Timing

2-6. REEL DISK ASS'Y REMOVAL

2-6-1. Brake Sub "L" Removal

1. Remove the spring brake sub "L" ①.
2. Lift up the brake sub "L" ② while pushing the clip brake sub"L" ③ in the direction of arrow.

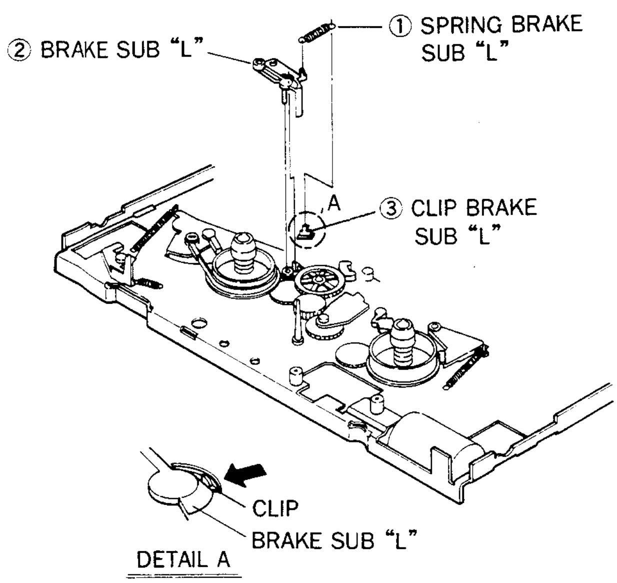

② BRAKE SUB "L"
① SPRING BRAKE SUB "L"
A
③ CLIP BRAKE SUB "L"
CLIP
BRAKE SUB "L"
DETAIL A

Fig. 19 Brake Sub "L" Removal

2-6-2. Gear Relay S2 & S1 Removal

1. Remove the washer slits ①.
2. Lift up the gear relay S2 ② and S1 ③.

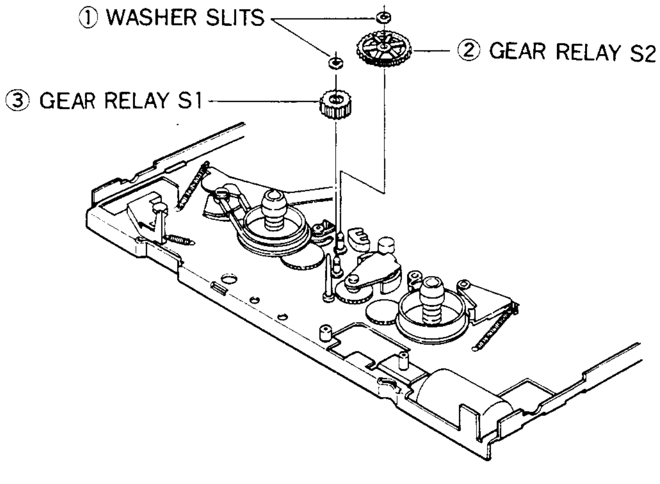

① WASHER SLITS
② GEAR RELAY S2
③ GEAR RELAY S1

Fig. 20 Gear Relay S2 & S1 Removal

2-6-3. Full Arm Tension Ass'y Removal

1. Take off the spring tension ①.
2. Push the pin arm tension ② releasing the clip in the direction of arrow (Bottom View).
3. Lift up the full arm tension ass'y ③.

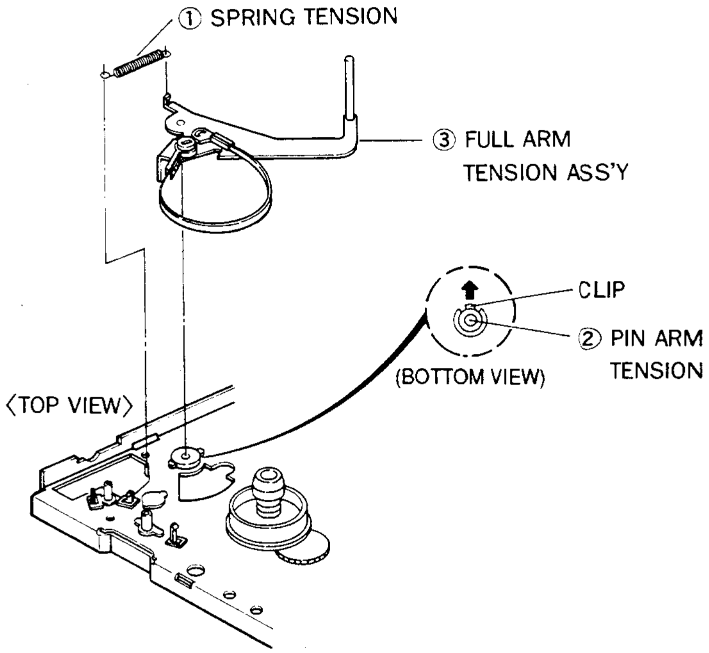

① SPRING TENSION
③ FULL ARM TENSION ASS'Y
CLIP
② PIN ARM TENSION
(BOTTOM VIEW)
〈TOP VIEW〉

Fig. 21 Full Arm Tension Ass'y Removal

2-6-4. Reel Disk "L" Ass'y & Gear Relay S3 Removal

1. Remove the washer slit (A) ①.
2. Lift up the reel disk "L" ass'y ② and the washer plain③.
3. Remove the washer slit (B) ④.
4. Lift up the gear relay S3 ⑤.

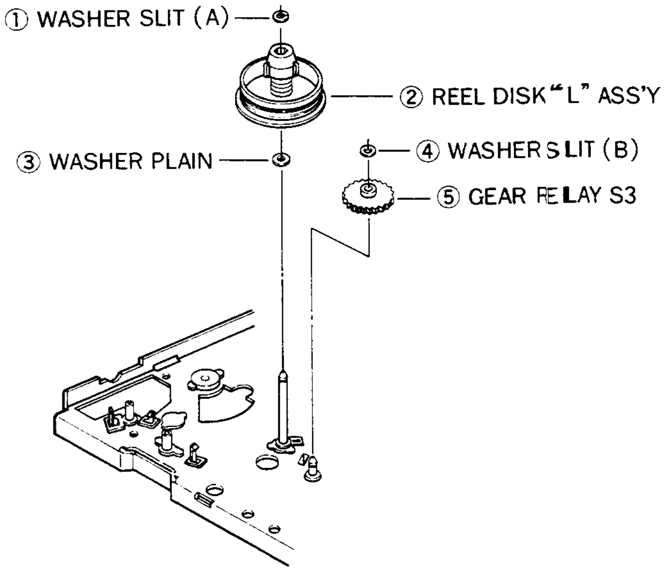

① WASHER SLIT (A)
② REEL DISK "L" ASS'Y
③ WASHER PLAIN
④ WASHER SLIT (B)
⑤ GEAR RELAY S3

Fig. 22 Reel Disk "L" Ass'y & Gear Relay S3 Removal

2-6-5. Brake Sub "R" Ass'y Removal

1. Remove the spring brake sub "R" ①.
2. Lift up the brake sub "R" ass'y ② while pushing the clip brake sub "R" ③ in the direction of arrow.

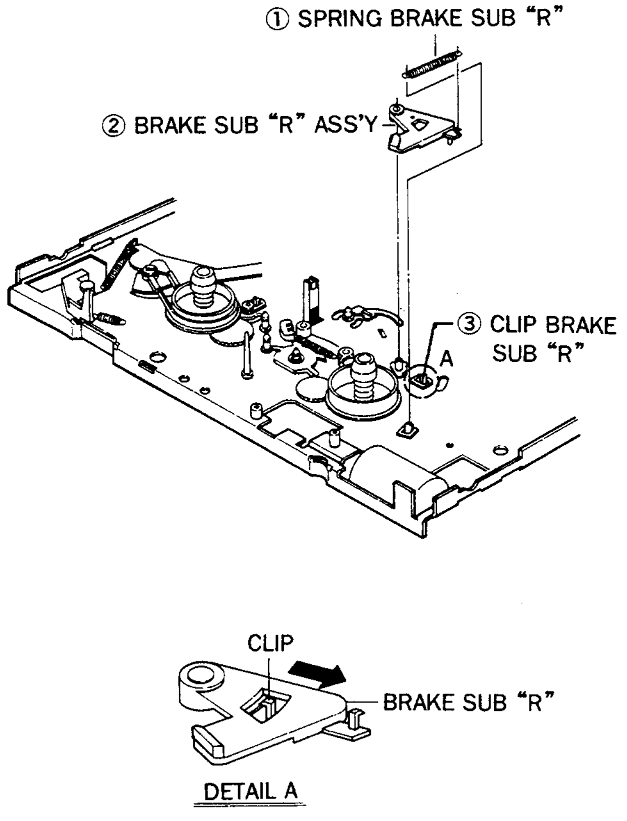

① SPRING BRAKE SUB "R"
② BRAKE SUB "R" ASS'Y
③ CLIP BRAKE SUB "R"
A
CLIP
BRAKE SUB "R"
DETAIL A

Fig. 23 Brake Sub "R" Ass'y Removal

2-6-6. Brake Main "L" & "R" Ass'y Removal (Fig. 24)

1. Remove the spring brake main ①.
2. Lift up the brake main "L" ass'y ② while pushing the clip in the direction of arrow (A). (Detail A)
3. Lift up the brake main "R" ass'y ③ while pushing the clip in the direction of arrow (B). (Detail B)

2-6-7. Reel Disk "R" Ass'y & Gear Relay "T" Removal (Fig. 25)

1. Remove the washer slit (A) ①.
2. Lift up the reel disk "R" ass'y ②.
3. Lift up the washer plain ③.
4. Remove the washer slit (B) ④.
5. Lift up the Gear Relay "T" ⑤.

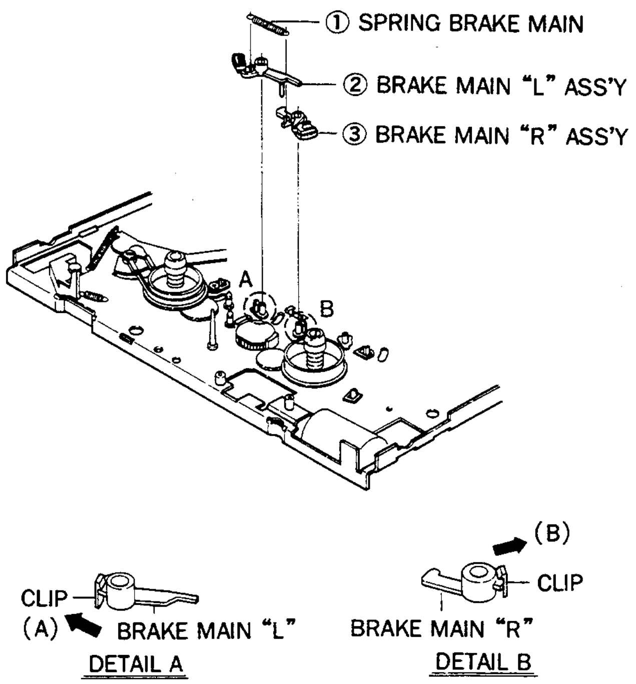

① SPRING BRAKE MAIN
② BRAKE MAIN "L" ASS'Y
③ BRAKE MAIN "R" ASS'Y
A
B
CLIP
(A)
BRAKE MAIN "L"
DETAIL A
(B)
CLIP
BRAKE MAIN "R"
DETAIL B

Fig. 24 Brake Main "L" & "R" Ass'y Removal

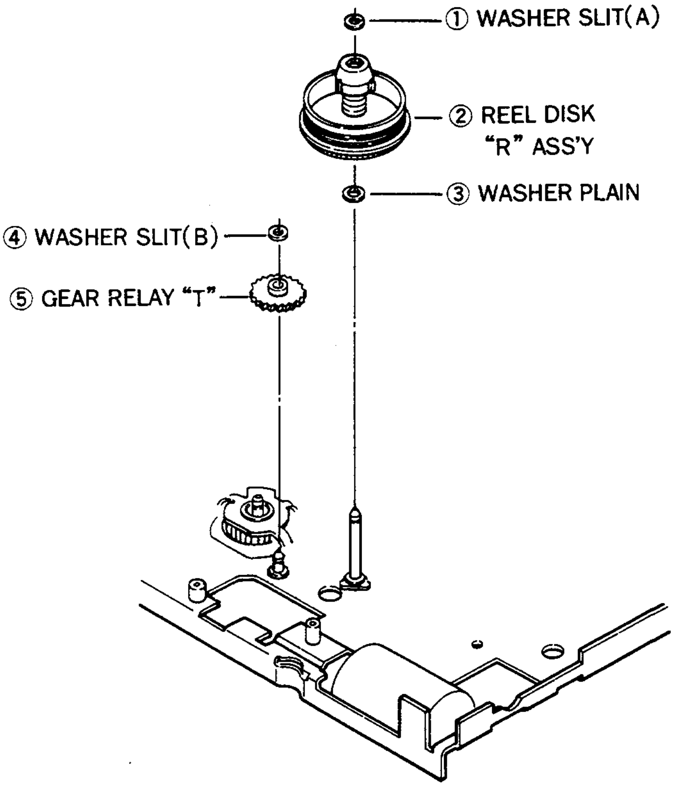

① WASHER SLIT(A)
② REEL DISK "R" ASS'Y
③ WASHER PLAIN
④ WASHER SLIT(B)
⑤ GEAR RELAY "T"

Fig. 25 Reel Disk "R" Ass'y & Gear Relay "T" Removal

2-6-8. Idler Sub Ass'y Removal

1. Remove the washer slit ①.
2. Lift up the idler sub ass'y ②.

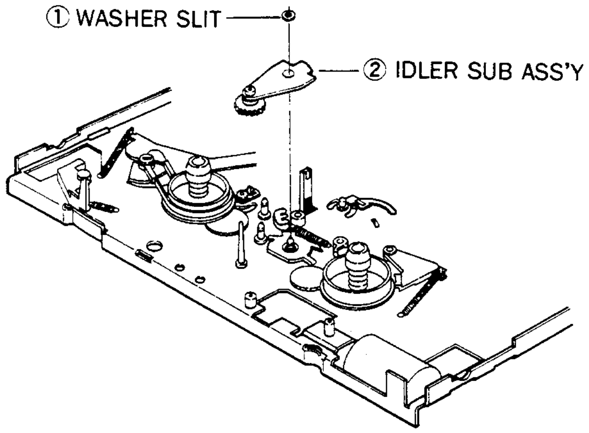

① WASHER SLIT
② IDLER SUB ASS'Y

Fig. 26 Idler Sub Ass'y Removal

2-6-9. Lever REC S/W Removal

1. Remove the spring record S/W ①.
2. Lift up the lever record S/W ② while pushing the clip in the direction of arrow.

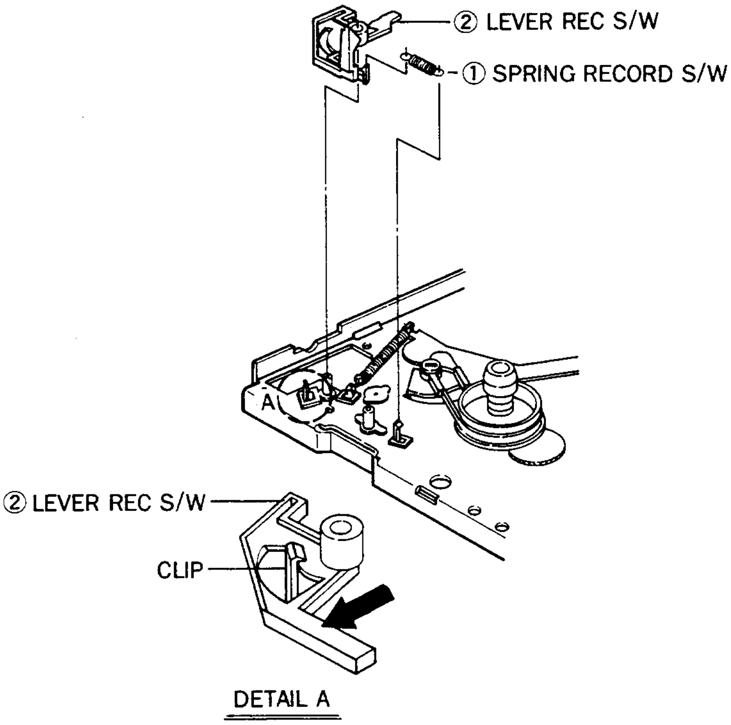

② LEVER REC S/W
① SPRING RECORD S/W
A
② LEVER REC S/W
CLIP
DETAIL A

Fig. 27 Lever REC S/W Removal

2-7. LOADING & CAPSTAN MOTOR ASS'Y REMOVAL & REASSEMBLY

2-7-1. Belt Capstan Removal

1. Remove the belt capstan ①.

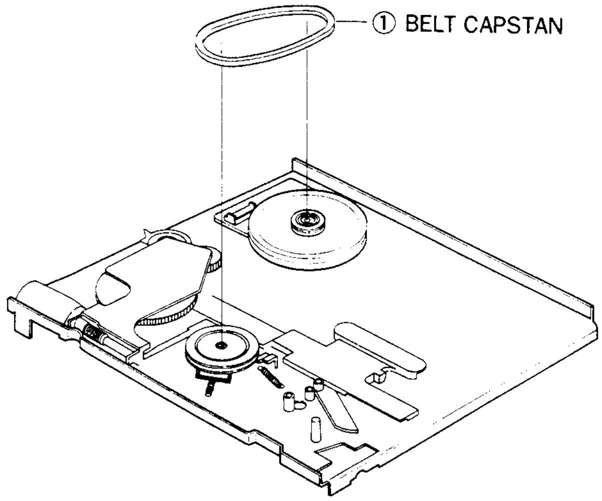

① BELT CAPSTAN

Fig. 28 Belt Capstan Removal

2-7-2. Motor D/D Capstan Removal

1. Remove three (3) screws ①. (Top View)
2. Lift up the motor D/D capstan ②. (Bottom View)

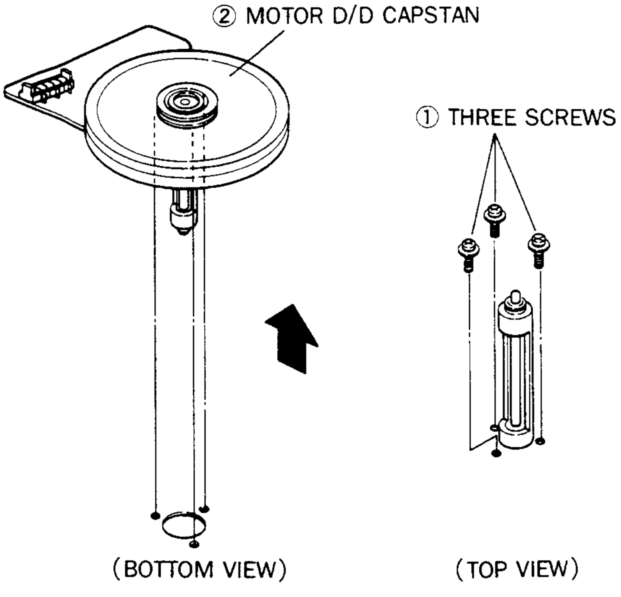

② MOTOR D/D CAPSTAN
① THREE SCREWS
(BOTTOM VIEW)
(TOP VIEW)

Fig. 29 Motor D/D Capstan Removal

2-7-3. Clutch Ass'y Removal

1. Remove the washer slit ①.
2. Lift up the clutch ass'y ②.
3. Remove the washer plain ③.

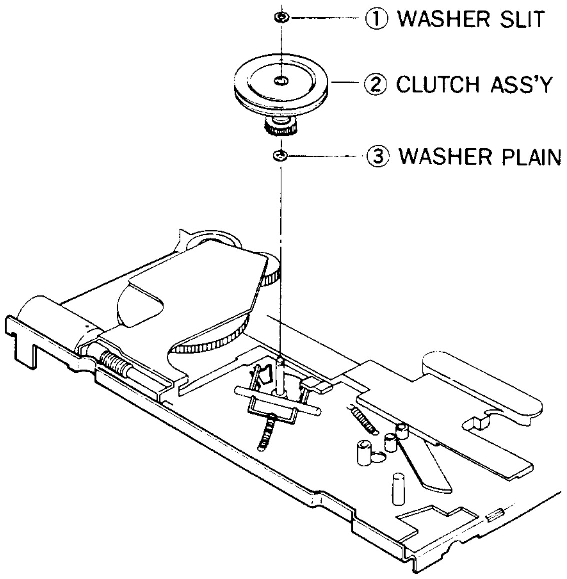

① WASHER SLIT
② CLUTCH ASS'Y
③ WASHER PLAIN

Fig. 30 Clutch Ass'y Removal

2-7-4. L/D Unit Ass'y & Gear Eject Drive Removal

1. Remove three (3) screws ① holding the loading unit ass'y ②.
2. Lift up the loading unit ass'y ②.
3. Lift up the gear eject drive ③.

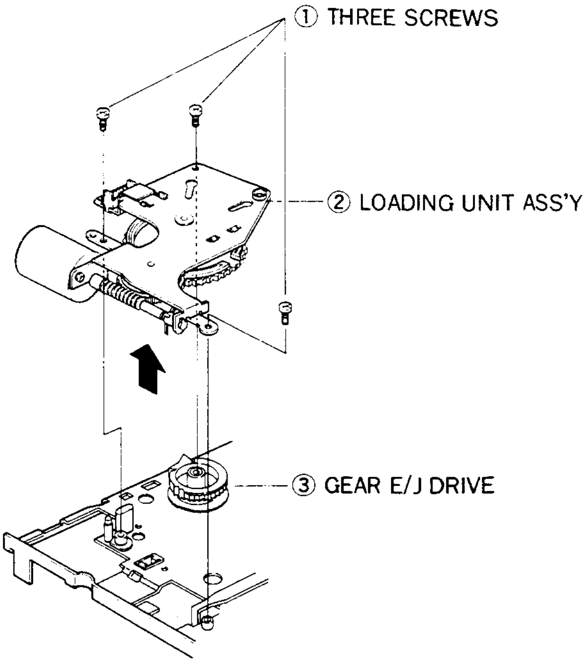

① THREE SCREWS
② LOADING UNIT ASS'Y
③ GEAR E/J DRIVE

Fig. 31 L/D Unit Ass'y & Gear Eject Drive Removal

2-7-5. Slide Main Removal

1. Remove the screw ① and washer slit ②.
2. Release the clip ③ holding the slide main ④ and then lift up the slide main ④.

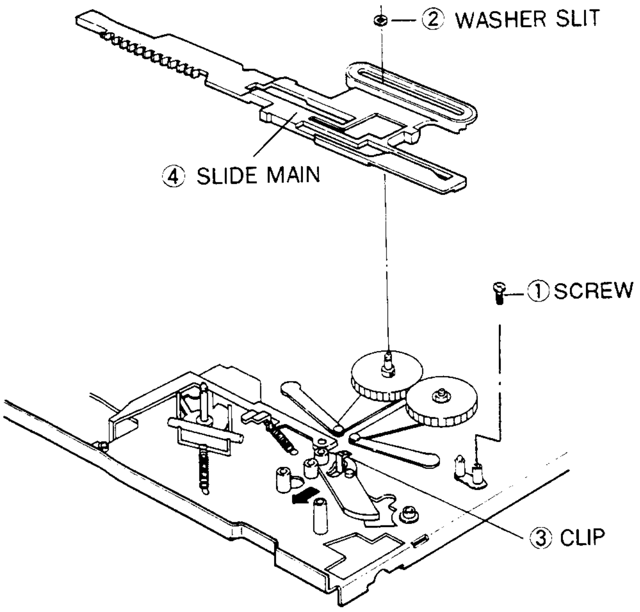

② WASHER SLIT
④ SLIDE MAIN
① SCREW
③ CLIP

Fig. 32 Slide Main Removal

2-7-6. Brake D/D Capstan Ass'y Removal

1. Remove the spring brake capstan ①.
2. Turn the brake D/D capstan ass'y ③ clockwise and then lift up it while pushing clip in the direction of arrow.

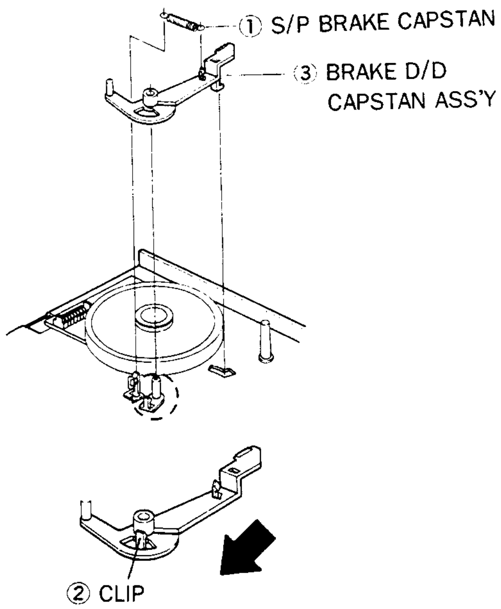
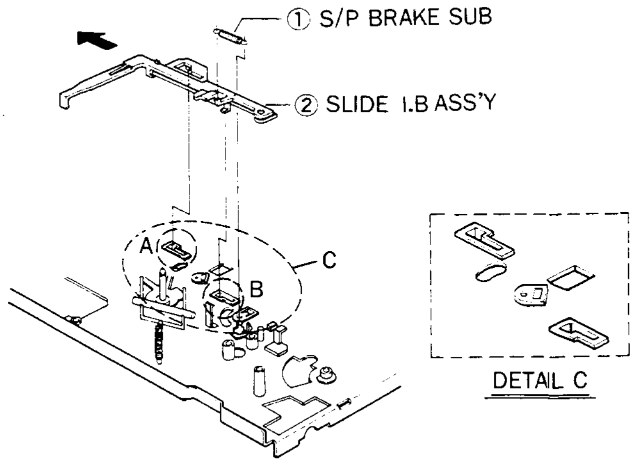

① S/P BRAKE CAPSTAN
③ BRAKE D/D
CAPSTAN ASS'Y
② CLIP

Fig. 33 Brake D/D Capstan Ass'y Removal

2-7-7. Slide I.B Ass'y Removal

1. Remove the spring brake sub ①.
2. Lift up the slide I.B ass'y ② while pushing the slide I.B ass'y ② to the end of the slot in the direction of arrow.


① S/P BRAKE SUB
② SLIDE I.B ASS'Y
A
B
C
DETAIL C

Note : These two slots are the reason why you must push I.B ass'y in the direction of arrow.

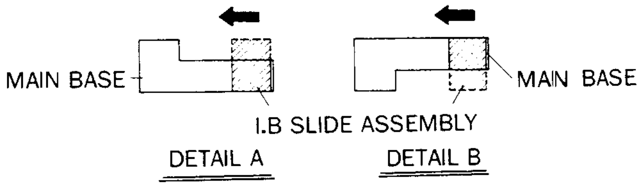

MAIN BASE
MAIN BASE
I.B SLIDE ASSEMBLY
DETAIL A
DETAIL B

Fig. 34 Slide I.B Ass'y Removal

2-7-8. Lever Shift Removal

1. Remove the spring lever shift ①.
2. Lift up the lever shift ②.

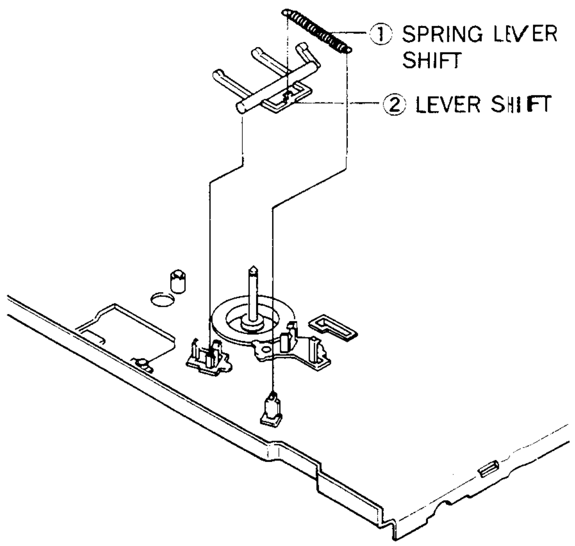

① SPRING LEVER
SHIFT
② LEVER SHIFT

Fig. 35 Lever Shift Removal

2-7-9. Lever Tension Control Removal

1. Lift up the lever tension control ①.

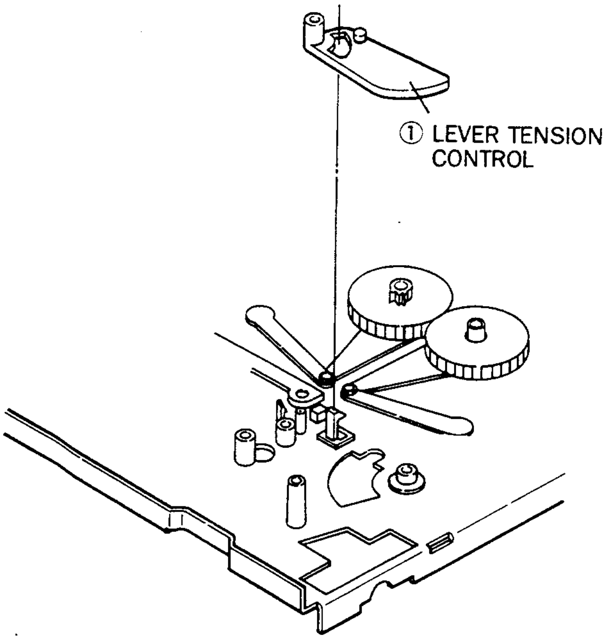

① LEVER TENSION CONTROL

Fig. 36 Lever Tension Control Removal

2-7-10. Gear Loading "L", "R" Ass'y Removal

1. Lift up the gear loading "R" ass'y ①.
2. Lift up the gear loading "L" ass'y ③ while pushing the gear loading "L" clip ② in the direction of arrow.

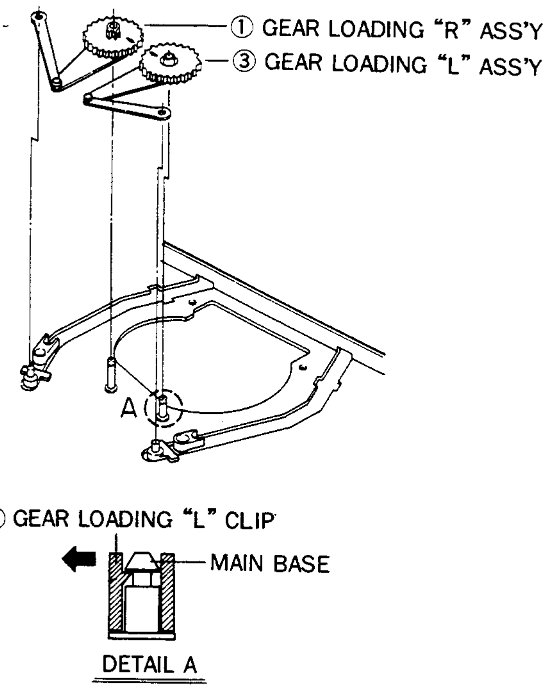

① GEAR LOADING "R" ASS'Y
③ GEAR LOADING "L" ASS'Y
A
② GEAR LOADING "L" CLIP
MAIN BASE
DETAIL A

Fig. 37 Gear Loading "L", "R" Ass'y Removal

2-7-11. Review Arm Ass'y Removal

1. Remove the washer slit ①.
2. Lift up the full review arm ass'y ②.

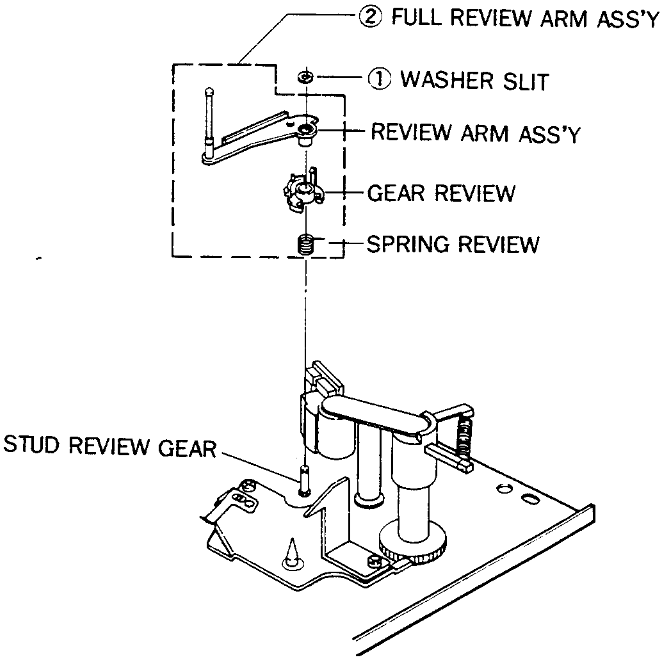

② FULL REVIEW ARM ASS'Y
① WASHER SLIT
REVIEW ARM ASS'Y
GEAR REVIEW
SPRING REVIEW
STUD REVIEW GEAR

Fig. 38 Review Arm Ass'y Removal

2-7-12. Drive Cam Pinch Ass'y Removal

1. Remove two (2) screws ①.
2. Lift up the drive cam pinch ass'y ②.

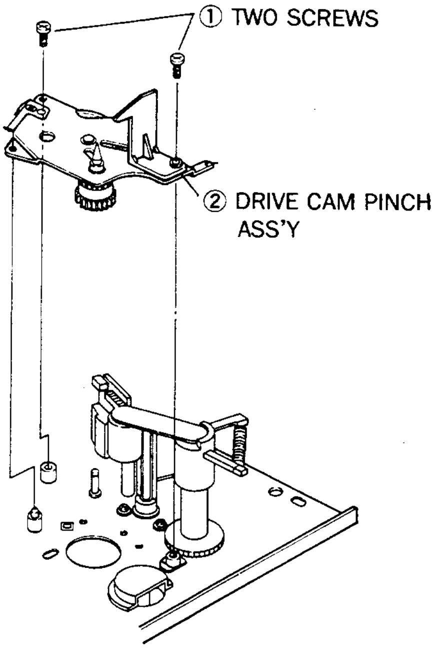

① TWO SCREWS
② DRIVE CAM PINCH ASS'Y

Fig. 39 Drive Cam Pinch Ass'y Removal

2-7-13. Pinch Roller Unit & Gear Escalator Removal

1. Remove the spring pinch roller ①.
2. Remove the washer slit ②.
3. Lift up the arm pinch ass'y ③.
4. Lift up the holder escalator ④ and the gear escalator ⑤.

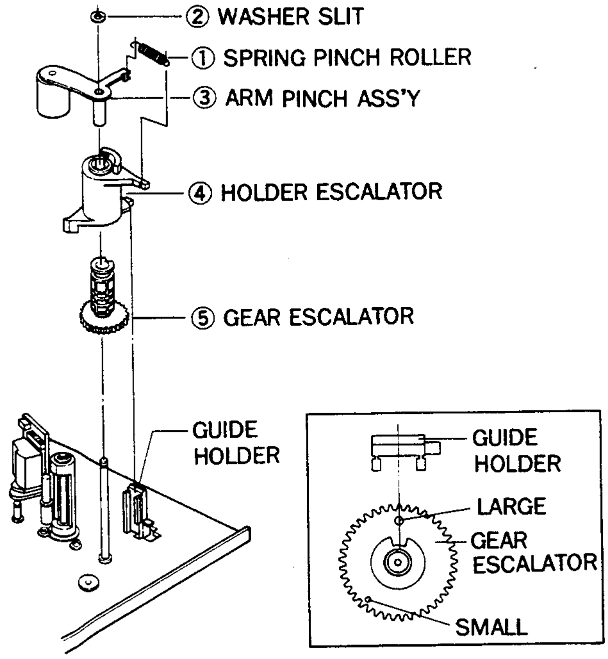

② WASHER SLIT
① SPRING PINCH ROLLER
③ ARM PINCH ASS'Y
④ HOLDER ESCALATOR
⑤ GEAR ESCALATOR
GUIDE HOLDER
GUIDE HOLDER
LARGE
GEAR ESCALATOR
SMALL

Fig. 40 Pinch Roller Unit & Gear Escalator Removal

2-7-14. Reassembly of Unit Drive Pinch Ass'y and Gear Escalator

1. Align the hole of the bracket pinch drive ① with the hole of the gear cam drive ②.
   (Refer to timing (A) in Fig. 41)
2. Align the hole of the bracket pinch drive ① with the hole of the gear cam pinch ③.
   (Refer to timing (B) in Fig. 41)
3. Align the protrusion on the side of the gear relay pinch ④ with the hole of the gear cam drive ②.
   (Refer to timing (C) in Fig. 41)
4. Install the gear escalator on the shaft and align the holes.
   (Refer to timing in Fig. 40)
5. While installing align the arrow mark of the gear cam pinch ③ with the hole of the gear escalator ⑤.
   (Refer to timing (D) in Fig. 42)
6. When aligning the timing (D), be sure to line up the timing (A), (B), (C).
7. Install the two (2) screws.

Bottom View of Drive Pinch Ass'y

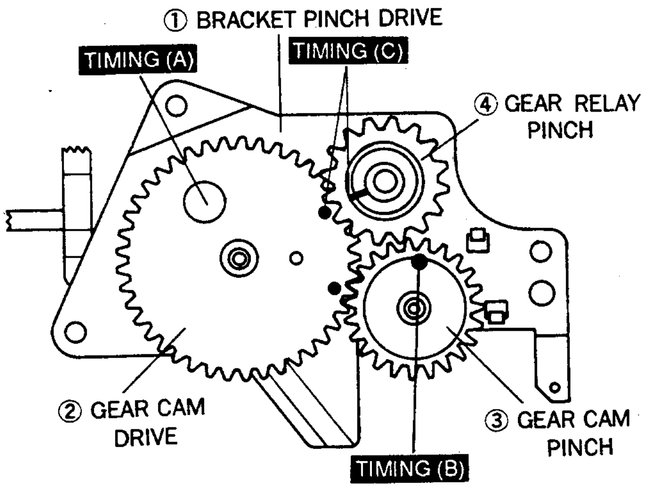

① BRACKET PINCH DRIVE
TIMING (A)
TIMING (C)
④ GEAR RELAY PINCH
② GEAR CAM DRIVE
③ GEAR CAM PINCH
TIMING (B)

Fig. 41 Timing of Gear Cam Drive, Gear Cam Pinch & Gear Relay Pinch

Top View of Drive Pinch Ass'y

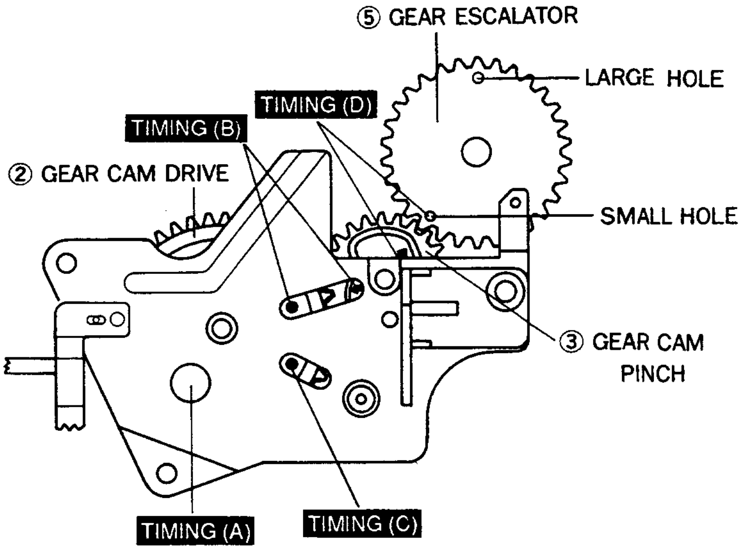
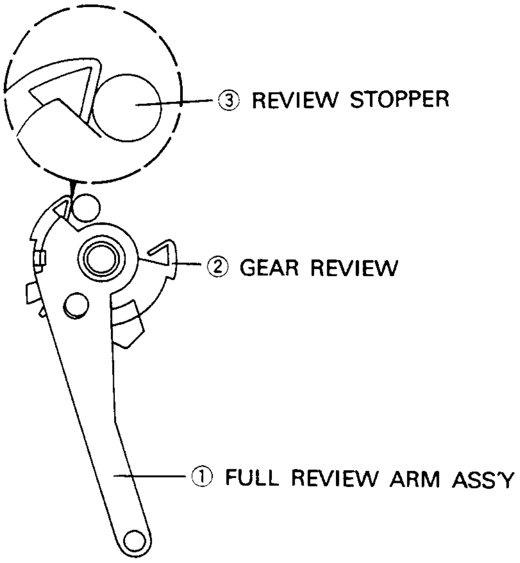

⑤ GEAR ESCALATOR
LARGE HOLE
TIMING (D)
TIMING (B)
② GEAR CAM DRIVE
SMALL HOLE
③ GEAR CAM PINCH
TIMING (A)
TIMING (C)

Fig. 42 Reassembly of Drive Pinch Ass'y & Gear Escalator

2-7-15. Reassembly of Full Review Arm Ass'y

1. Assemble the full review arm ass'y ① so that the gear review ② is touching the review stopper ③ as shown in Fig. 43.
2. Install the washer slit.

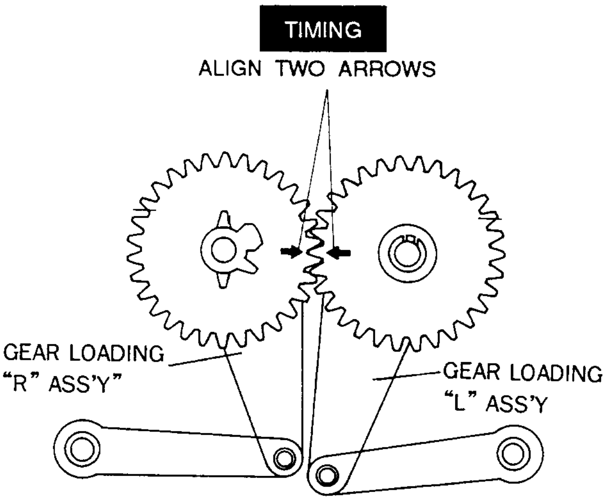


③ REVIEW STOPPER
② GEAR REVIEW
① FULL REVIEW ARM ASS'Y

Fig. 43 Reassembly and Timing of Full Review Arm Ass'y

2-7-16. Reassembly of Gear Loading "L", "R" Ass'y

1. Reassemble the gear loading L/R ass'y in the eject mode while aligning the timing mark.
(Refer to Fig. 44)

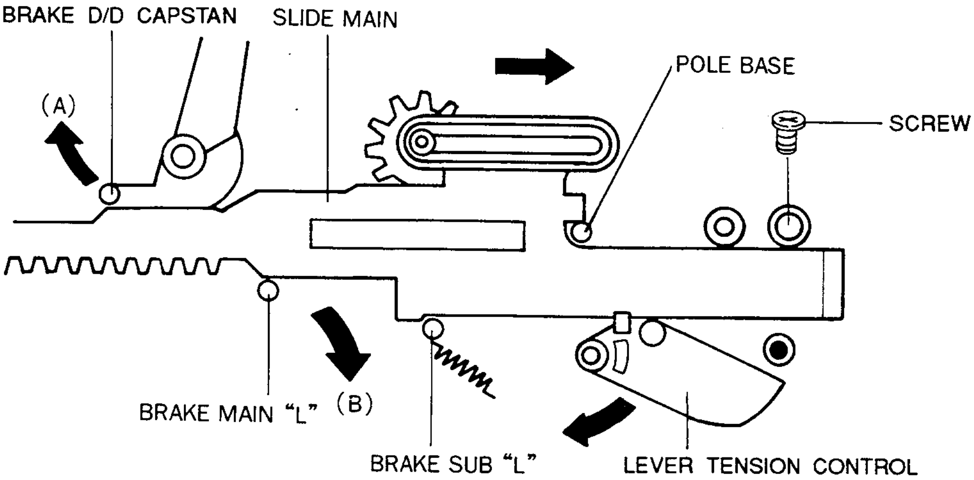


TIMING
ALIGN TWO ARROWS
GEAR LOADING "R" ASS'Y"
GEAR LOADING "L" ASS'Y

Fig. 44 Reassembly of Gear Loading "L", "R" Ass'y

2-7-17. Timing of Slide Main

1. Install the brake D/D capstan, lever tension control and slide I.B ass'y.
2. Install the slide main between brake D/D capstan and brake main "L" , while pulling the brake D/D capstan and the brake main"L" toward arrow (A) and (B) respectively.
3. At the same time, make sure the brake sub "L" and the pole base is located as shown in the Fig. 45.
4. Install the one screw.



BRAKE D/D CAPSTAN
SLIDE MAIN
POLE BASE
(A)
SCREW
BRAKE MAIN "L"
(B)
BRAKE SUB "L"
LEVER TENSION CONTROL

Fig. 45 Timing of Slide Main

2-7-18. Reassembly and Timing of Program S/W & Gear Master

1. Align two arrows on the program S/W ①. (Refer to timing (A))
2. After aligning timing (A) completely, install the gear master ② so that the boss on the program S/W ① is inserted into the small hole of gear master ②. (Refer to timing (B))
3. Install the gear worm wheel and then washer slit.

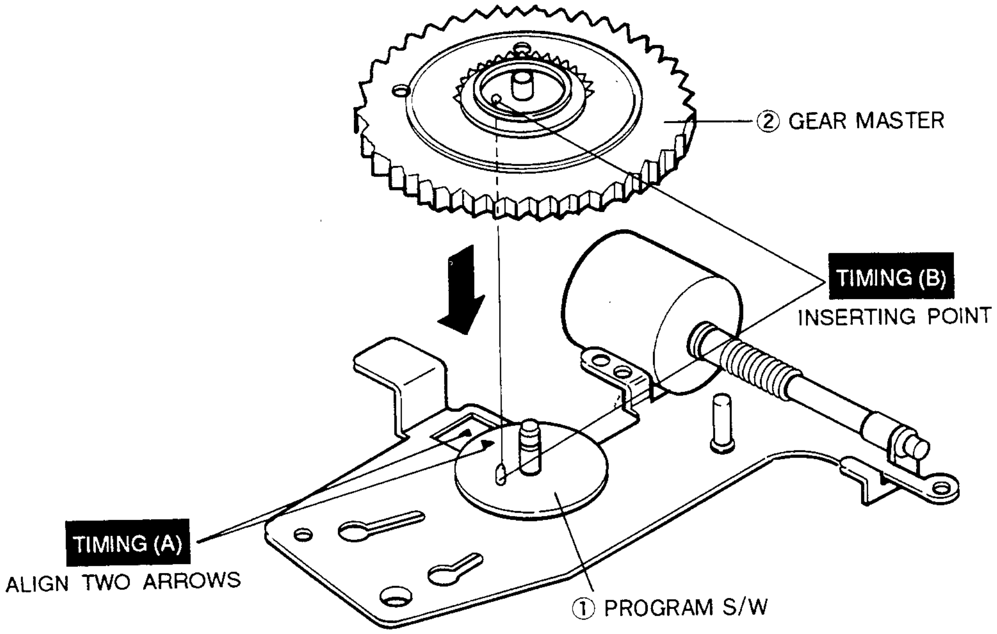

② GEAR MASTER
TIMING (B)
INSERTING POINT
TIMING (A)
ALIGN TWO ARROWS
① PROGRAM S/W

Fig. 46 Reassembly and Timing of Program S/W & Gear Master

2-7-19. Timing of Gear Master & Gear Eject Drive

1. Install the gear eject drive.
2. Install the loading unit and align the slot #2 of the gear eject drive ① with the hole of the gear master ②. (Refer to timing (A) in Fig. 47)
3. At this time make sure that the arrow marks of the gear relay pinch ③ and the gear master ② are aligned correctly. (Refer to timing (B) in Fig. 47)

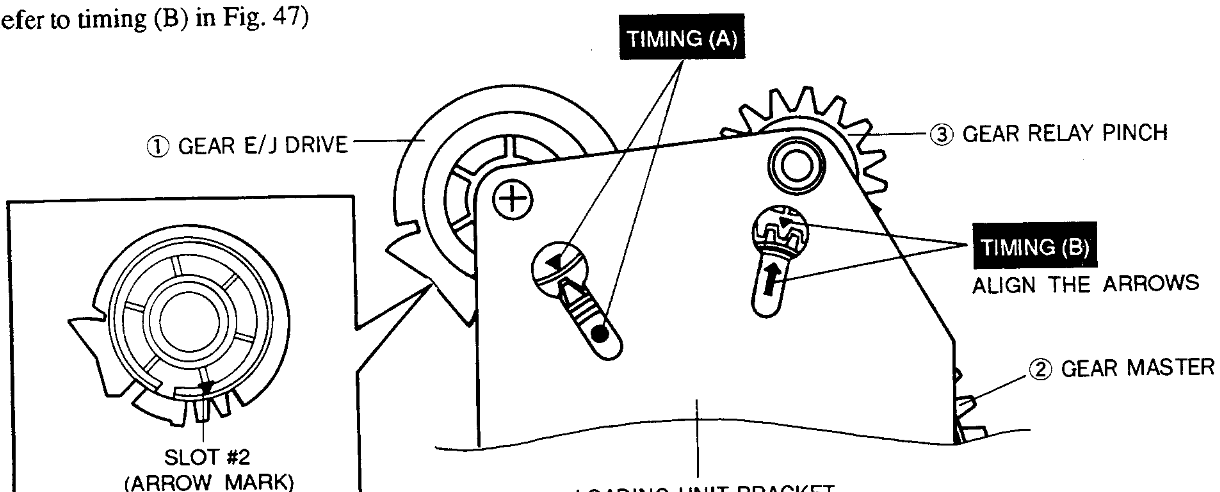

TIMING (A)
① GEAR E/J DRIVE
③ GEAR RELAY PINCH
TIMING (B)
ALIGN THE ARROWS
② GEAR MASTER
SLOT #2
(ARROW MARK)
LOADING UNIT BRACKET

Fig. 47 Timing of Gear Master & Gear Eject Drive

2-8. TAPE TRANSPORT ASS'Y REMOVAL

2-8-1. Pole Base "L", "R" Ass'y Removal

1. Remove cylinder ass'y. (Refer to 2-5-1)
2. Move the pole base "L", "R" ass'y ①, ② to the end of slot.
3. Lift up the pole base "L", "R" ass'y ①, ②.

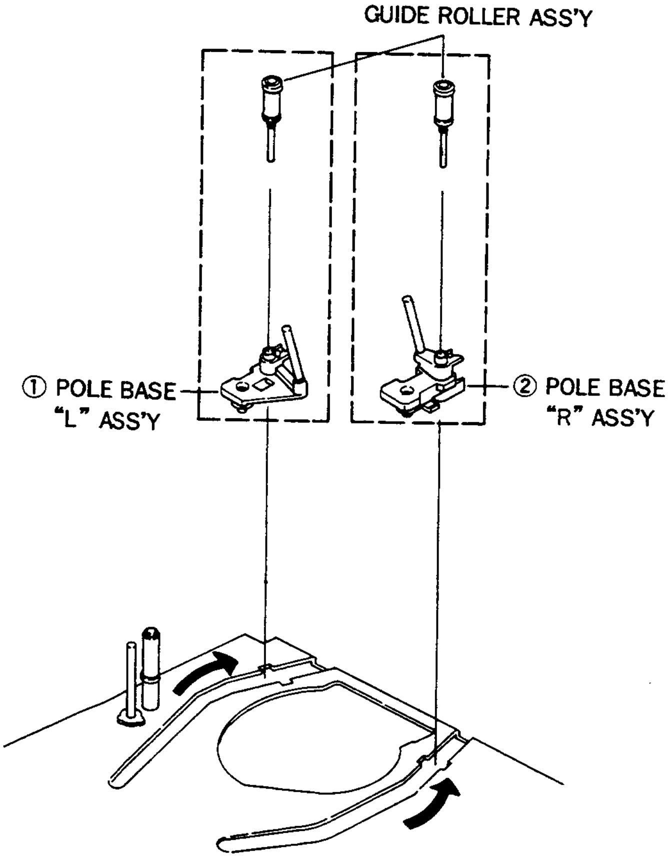

GUIDE ROLLER ASS'Y
① POLE BASE "L" ASS'Y
② POLE BASE "R" ASS'Y

Fig. 48 Pole Base "L", "R" Ass'y Removal

2-8-2. Head Magnetic F/E Removal (Fig. 49)

1. Remove one (1) screw ① holding the full erase head ②.
2. Unsolder the F/E head P.C.B. ② from the head magnetic F/E ③.
3. Lift up the head magnetic F/E ③.

2-8-3. A/C Head Ass'y Removal (Fig. 50)

1. Remove two (2) screws ①.
2. Lift up A/C head ass'y ②.
3. Reinstall in reverse order.

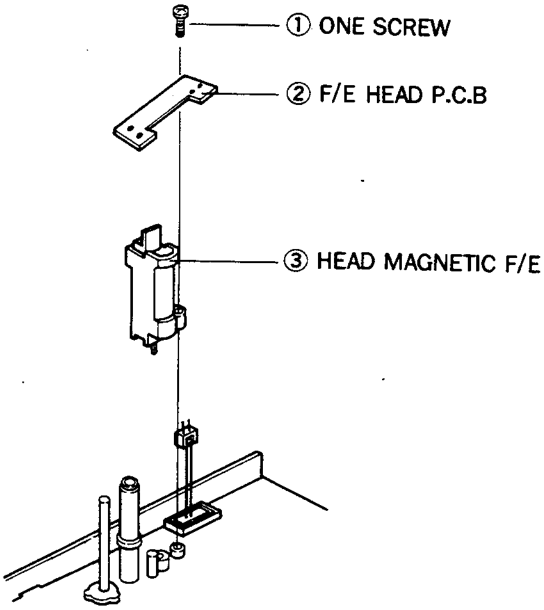

① ONE SCREW
② F/E HEAD P.C.B
③ HEAD MAGNETIC F/E

Fig. 49 Head Magnetic F/E Removal

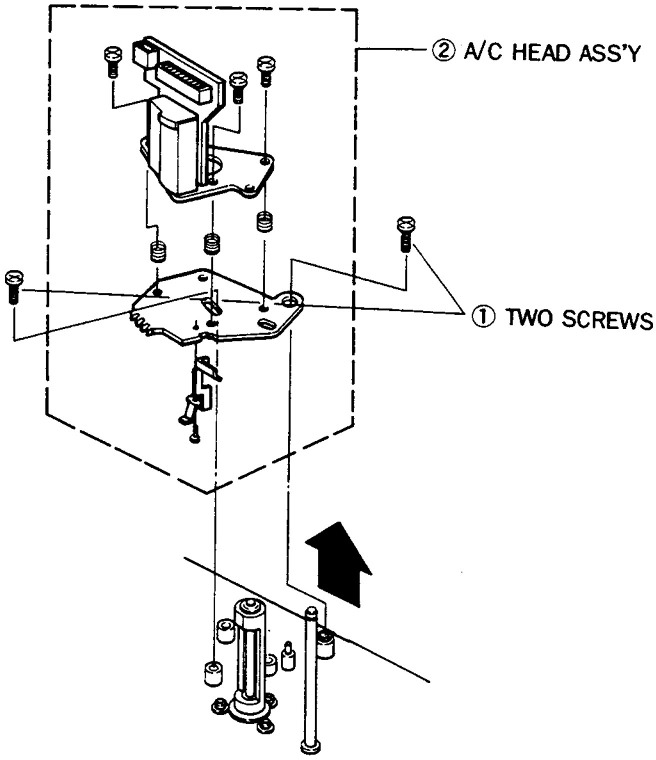

② A/C HEAD ASS'Y
① TWO SCREWS

Fig. 50 A/C Head Ass'y Removal

3. MECHANICAL ADJUSTMENT

3-1. TAPE TRANSPORT SYSTEM

Note :
The tape transport system has been adjusted precisely in the factory. Alignment is not necessary except for the followings :
* Noises observed on the screen.
* Tape damage.
* Parts replacement in the tape transport system.

3-1-1. Location of Tape Transport Adjustment (Adjustment Reference)

Lower flange height of tape guide is used as the basic reference for the transport adjustment.
To keep height of the tape guide, do not apply excessive force onto the main base to prevent damage.

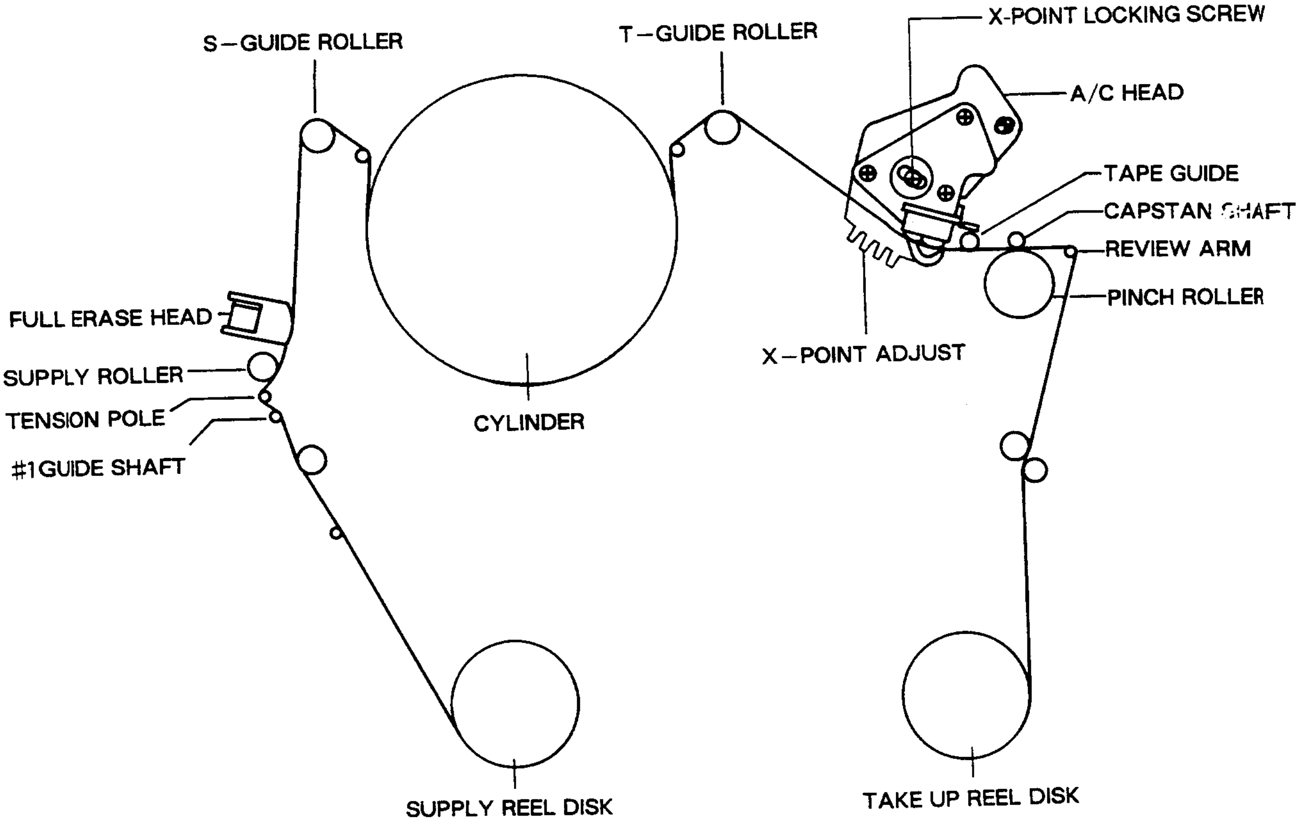

S-GUIDE ROLLER
T-GUIDE ROLLER
X-POINT LOCKING SCREW
A/C HEAD
TAPE GUIDE
CAPSTAN SHAFT
REVIEW ARM
PINCH ROLLER
FULL ERASE HEAD
SUPPLY ROLLER
TENSION POLE
#1GUIDE SHAFT
CYLINDER
X-POINT ADJUST
SUPPLY REEL DISK
TAKE UP REEL DISK

Fig. 1 Location of Tape Transport Adjustment

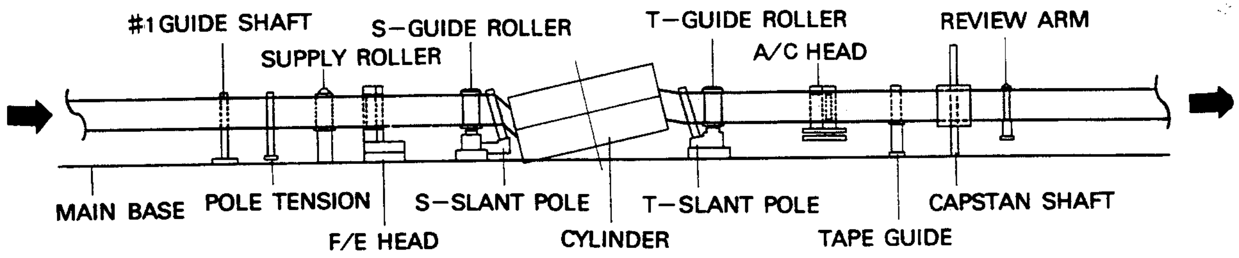

#1GUIDE SHAFT
S-GUIDE ROLLER
SUPPLY ROLLER
T-GUIDE ROLLER
A/C HEAD
REVIEW ARM
MAIN BASE
POLE TENSION
S-SLANT POLE
T-SLANT POLE
CAPSTAN SHAFT
F/E HEAD
CYLINDER
TAPE GUIDE

Fig. 2 Tape Travel Diagram

3-1-2. Tape Transport System Adjustment

1) Pre-adjustment

When the part(s) are replaced, perform required adjustments by referring to procedures for the tape transport system. When the part (s) are replaced, the tape path may be changed.
First run a E-180 tape and make sure excessive tape wrinkle does not occur at each tape guide.

1. If tape wrinkle is observed at the S, T-guide rollers, turn the S,T-guide rollers until wrinkle disappears.
2. If the tape wrinkle is still observed at the tape guide, perform the tilt adjustment of the A/C head.

2) Adjustment procedure

1. A/C head assembly adjustment

Test Point : W3V01 (Envelope)
W3V02 (H'D SW - Trigger)
W3V03 (CTL Pulse)
TP4301 - 2PIN (Audio Out)
Test Tape : SR2-2 (Color Bar ; 1KHz)
SR1-2 (Mono Scope ; 6KHz)
Blank Tape (E-240)

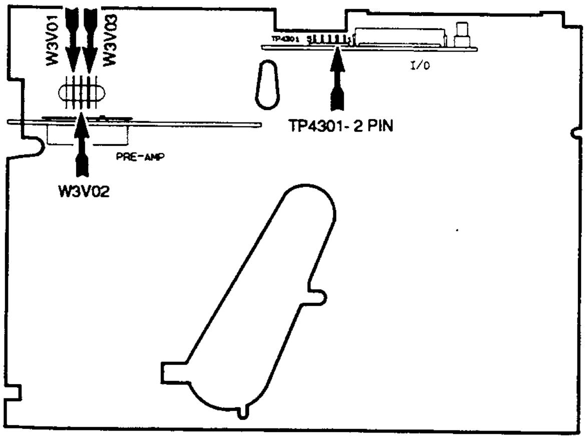

W3V01
W3V03
TP4301
I/O
TP4301- 2 PIN
PRE-AMP
W3V02

Fig. 3 Location of Test Point (Main PCB)

a. A/C head height adjustment

1. Run the alignment tape SR2-2 in the playback mode.
2. Observe surface of the audio head using a dental mirror.
3. Turn screw (A), (B), (C) clockwies or counterclockwise until the gap of lower tape edge and the lower edge of the control head is about 0.25 mm.
   (Refer to Fig. 4 and 5)

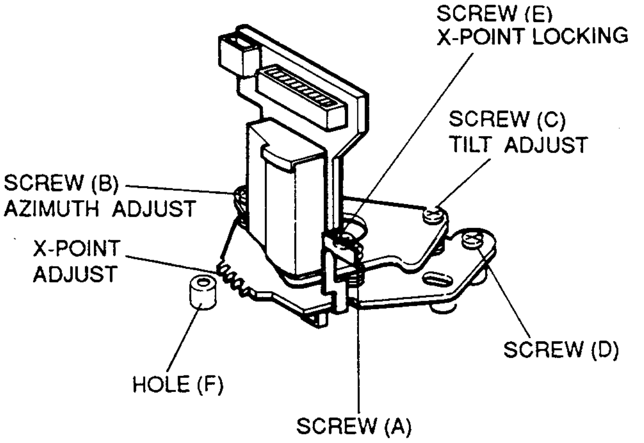

SCREW (E)
X-POINT LOCKING
SCREW (C)
TILT ADJUST
SCREW (B)
AZIMUTH ADJUST
X-POINT
ADJUST
SCREW (D)
HOLE (F)
SCREW (A)

Fig. 4 Location of A/C Head Adjustment Screw

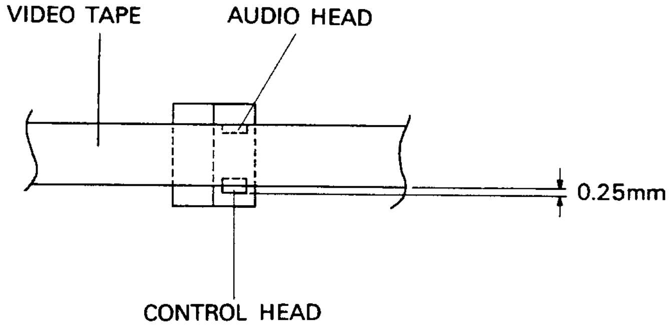

VIDEO TAPE
AUDIO HEAD
0.25mm
CONTROL HEAD

Fig. 5 A/C Head Height Adjustment

b. A/C head tilt adjustment

1. Playback a E-240 tape and observe position of the tape at the lower flange of tape guide.
2. Confirm that there is no curl or wrinkle at the lower flange of tape guide as shown in Fig. 6 (B).
3. If a curl or wrinkle of the tape has occured, slightly turn the screw (C) tilt adjust on the A/C H'd ass'y clockwise until it disappears as shown in Fig. 6 (B).
4. Reconfirm the A/C head height.

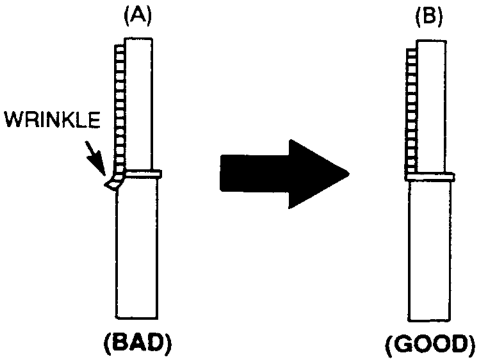

(A)
(B)
WRINKLE
(BAD)
(GOOD)

Fig. 6 Tape Guide Check

c. Audio azimuth adjustment

1. Load alignment tape (SR1-2 ; 6KHz) and playback the 6KHz signal.
2. Connect channel-1 scope probe to 2pin of TP4301 on the I/O PCB.
3. Adjust screw (B) vertically to achieve maximum audio level. (See Fig. 4)

d. A/C head position (X-Point) adjustment

1. Playback the SR1-2 alignment tape.
2. Connect CH-1 scope probe to W3V03.
3. Connect CH-2 scope probe to W3V02 and trigger head switching pulse.
4. Set tracking preset to 15msec using the "TRK" (Tracking) button ▲/▼ of remote control. (Refer to Fig. 7 and 8)
5. Connect CH-1 scope probe to W3V01.
6. Turn the screw (E) counterclockwise. (See Fig. 4)
7. Insert the adjusting driver (X-Point) into the hole (F) of main base and adjust the A/C head ass'y so that envelope waveform is maximum amplitude and then tighten the screw (E).

◈ Setting of Scope ◈

- Volt/div. ; CH-1 = 0.1V
  CH-2 = 0.2V
- Time/div. ; 5msec

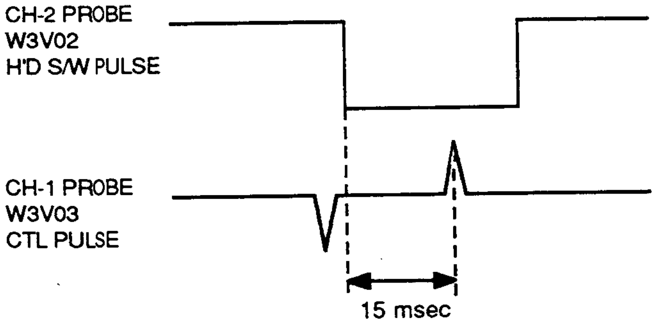


Fig. 7 Tracking Preset Adjustment

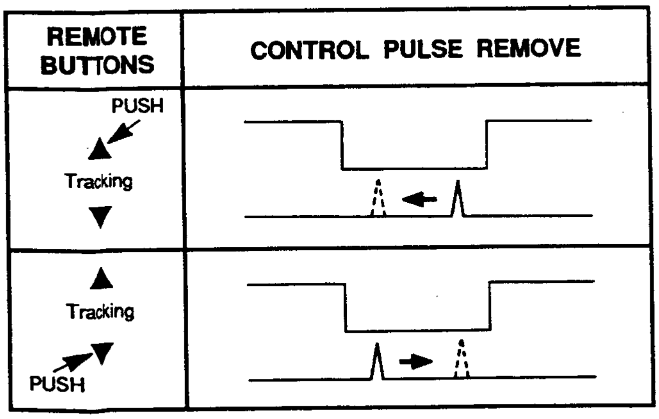


Fig. 8 Control Pulse Adjustment

2. Linearity adjustment (S, T-guide rollers adjustment)

Test Point : W3V01 (Envelope)
W3V02 (H'D SW - Trigger)
Test Tape : SR1-2 (Mono Scope ; 6KHz)

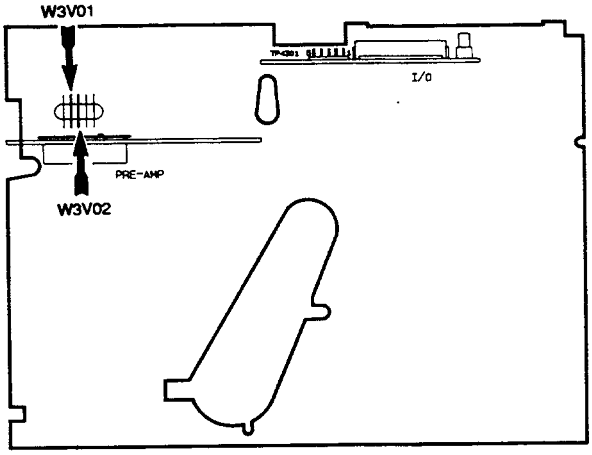
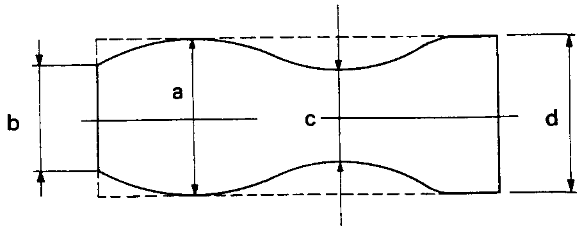


Fig. 9 Location of Test Point (Main PCB)

1. Playback the SR1-2 alignment tape (SP mode).
2. Observe the video envelope signal on an oscilloscope triggered by the video switching pulse.
3. Make sure the video envelope waveform (in its minimum output) meets the specification shown in Fig. 10. If it does not, adjust as follows ;

Note :
a=Maximum output of the video RF envelope.
b=Minimum output of the video RF envelope at the entrance side.
c=Minimum output of the video RF envelope at the center point.
d=Minimum output of the video RF envelope at the exit side.



a b c d

c, b, d/a ≧ 63%

Fig. 10 Envelope Waveform Adjustment

4. If the section A in Fig. 11 does not meet the specification, adjust the S-guide roller up or down.
5. If the section B in Fig. 11 does not meet the specification, adjust T-guide roller up or down.

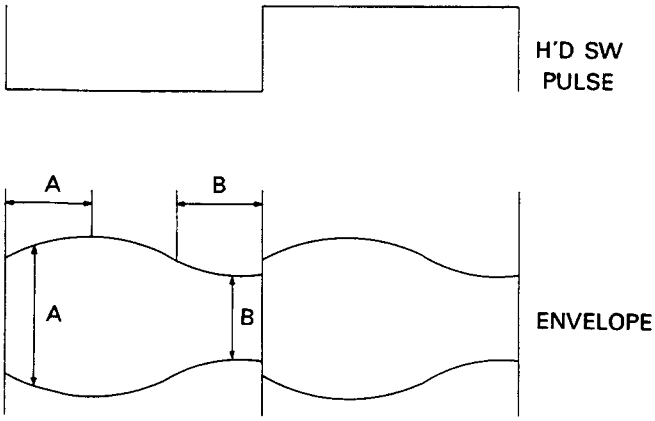

H'D SW PULSE
A
B
A
B
ENVELOPE

Fig. 11 Adjustment Points

6. Slightly loosen the set screw at the lower part of the S, T-guide rollers with a (Hex Wrench - 0.9mm) so that the guide roller can be adjusted with reasonable tightness. (Refer to Fig. 12)

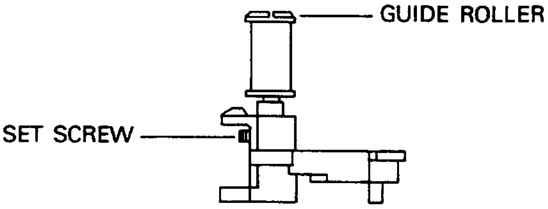

GUIDE ROLLER
SET SCREW

Fig. 12

7. Playback the SR1-2 alignment tape (SP mode).
8. Connect an oscilloscope CH-1 to the W3V01 and CH-2 to the W3V02 on the same PCB for triggering.
9. Turn the guide roller heads with a flat head (▬) screw driver to obtain flat video RF envelope as shown in Fig. 13.
10. After the adjustment is completed, tighten the set screws.

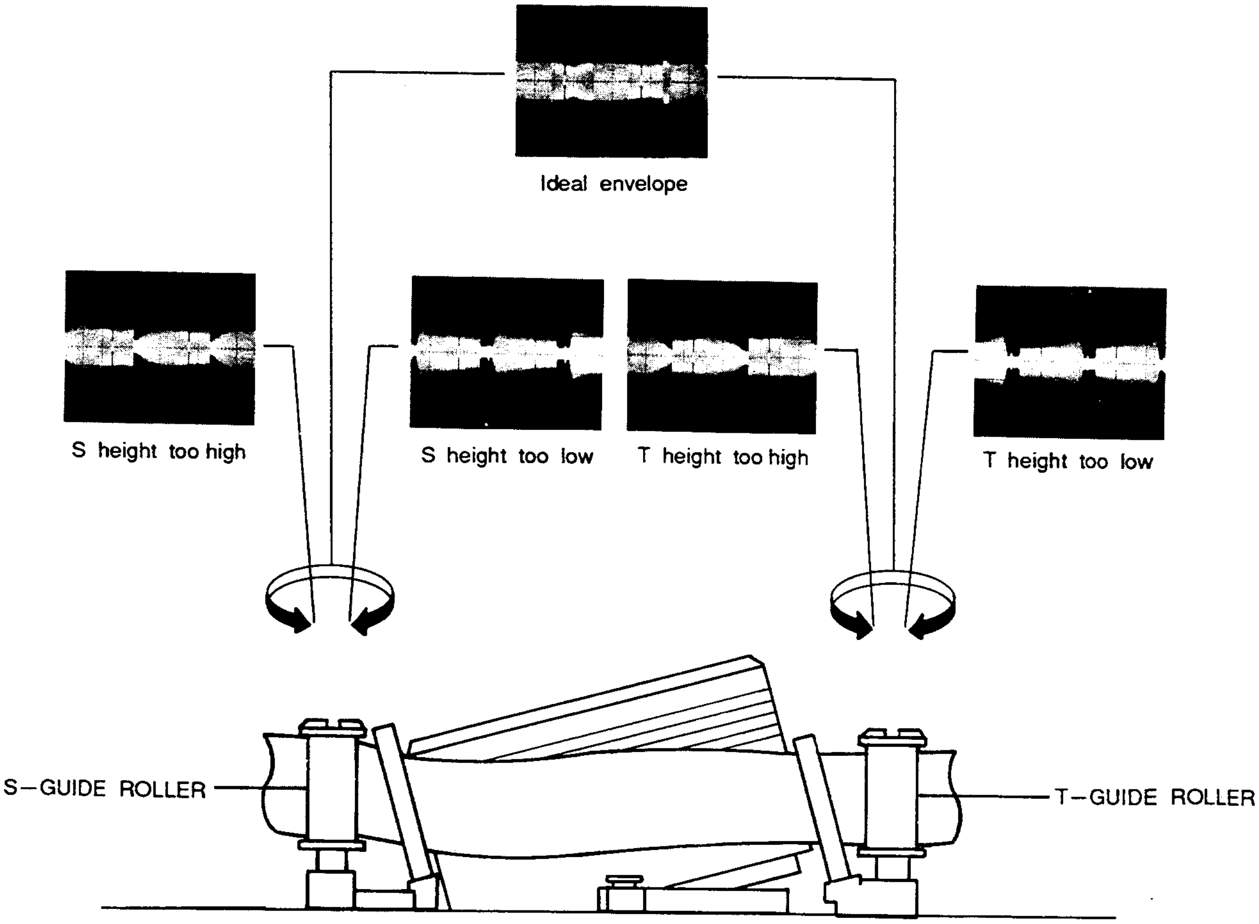

Ideal envelope
S height too high
S height too low
T height too high
T height too low
S−GUIDE ROLLER
T−GUIDE ROLLER

Fig. 13 S, T-Guide Roller Height Adjustments

3. Check for transitional operation from RPS to play

Check transition from RPS mode to play mode, using a pre-recorded SP tape, make sure the entrance side of envelope comes to an appropriate steady state within 3 seconds as shown in Fig. 14.

If the envelope waveform does not reach specified peak-to-peak amplitude within 3 seconds, adjust as follows :

1. Make sure there is no gap between the supply roller lower flange and the tape.
   If there is a gap, adjust the supply guide roller again.
2. Change operation mode from the RPS to the play mode again and make sure entrance side of envelope rises within 3 seconds.

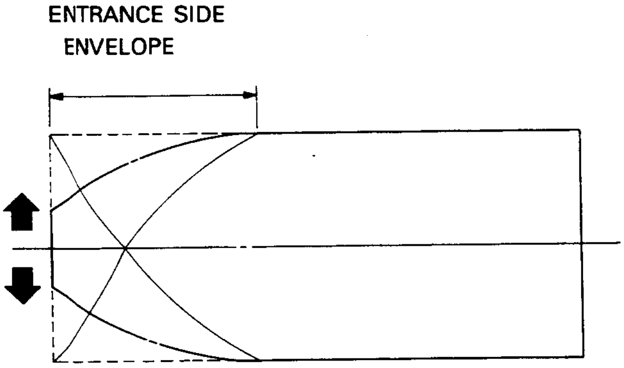


Fig. 14 Video envelope rising when operation mode changes from RPS to play mode.

4. Envelope check

1. Make recordings on E-120 and E-180 tapes, and make sure the playback output envelope meets the specification as shown in Fig. 15.
2. Playback a self recorded tape (recording made on this unit), (with a E-120) the video envelope should meet the specification as shown in Fig. 15.
   In SP mode, (A) should be same as (B).
   If the head gap is wide, upper cylinder should be checked.

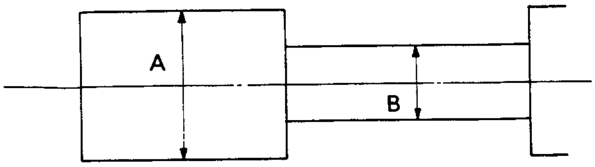


Fig. 15 Envelope Output and Output Level Difference

5. Tape wrinkle check

1. Run the E-240 tape in the playback, FPS, RPS and the pause mode and then observe tape wrinkle at each guide.
2. If excessive tape wrinkle is observed in the mode shown below, perform the associated adjustment shown below.

a. Playback mode

- Tape wrinkle at the S, T-guide roller section : Linearity adjustment.
- Tape wrinkle at tape guide flange : A/C head assembly coarse adjustment.

3-2. REEL TORQUE

3-2-1. Reel Torque

1. The rotation of the capstan motor operates the clutch ass'y through the belt capstan motor.
2. Brake operation and shift operation in FF/REW are done by a slide lever.
3. Transportation of accurate driving force is done by gears. (clutch ass'y)

MODE	TORQUE g/cm	GAUGE
PB/REC	100 ± 30	Cassette Torquement
RPS	170 ± 30	Cassette Torquement
FF/REW	Minimum 600	Torque Gauge

Note : If the spec is out of above chart, replace the clutch ass'y and then recheck.

3-2-2. Location of Tension Pole and Back Tension Adjustment

1. Remove the housing ass'y and set the deck to play mode.
2. Adjust the cam tension to 0 ~ —0.5mm from the center of supply roller.
3. The back tension meter should be used for checking back tension.

Check back tension, should be 40 ~ 47g.cm.
If not, adjust cam tension.

Counterclockwise : Torque UP
Clockwise : Torque DOWN

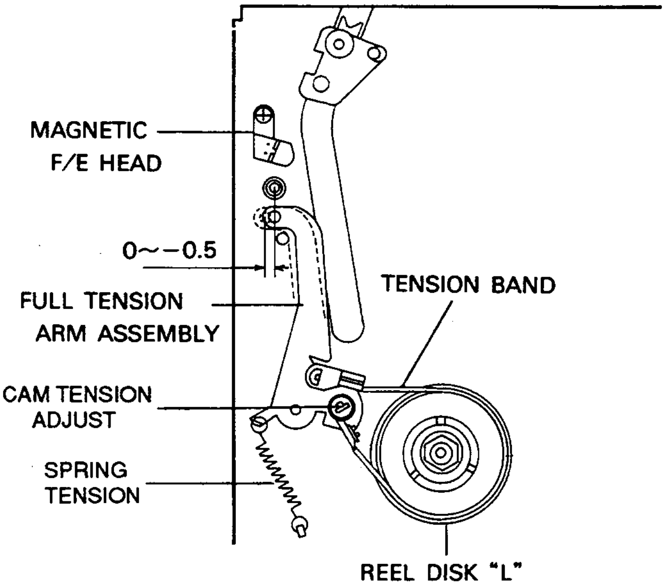

MAGNETIC F/E HEAD
0~−0.5
FULL TENSION ARM ASSEMBLY
TENSION BAND
CAM TENSION ADJUST
SPRING TENSION
REEL DISK "L"

Fig. 16 Tension Pole and Back Tension Adjustment

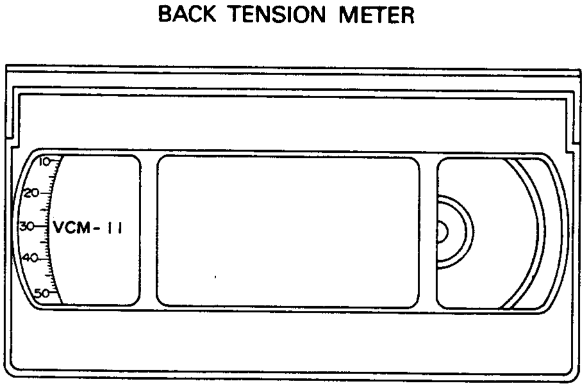

BACK TENSION METER
10
20
30
40
50
VCM-11

Fig. 17 Back Tension Tape Torque Cassette

4. ELECTRICAL ADJUSTMENTS

4-1. PREPARATION

Electrical adjustments are required after replacing circui components and certain mechanical parts.
It is important to perform these adjustment only after all repairs and replacements have been completed. Also, do not attempt these adjustments unless the proper equipment is available.

4-1-1. Required Test Equipment

1. Color Television or Monitor.
2. Oscilloscope : wide-band, dual-trace,
   triggered delayed sweep.
3. Trackingscope.
4. AC Voltmeter.
5. Audio Analyzer.
6. Sinewave Signal Generator.
7. Recording tape. (Blank tape)
8. Alignment tapes : SR1-2, SR2-2, SR2-3

Tapes	Video Signal	Audio Signal
SR1-2 (PAL)	Mono Scope	6 KHz
SR2-2 (PAL)	Color Bars	1 KHz
SR2-3 (SECAM)	Color Bars	1 KHz

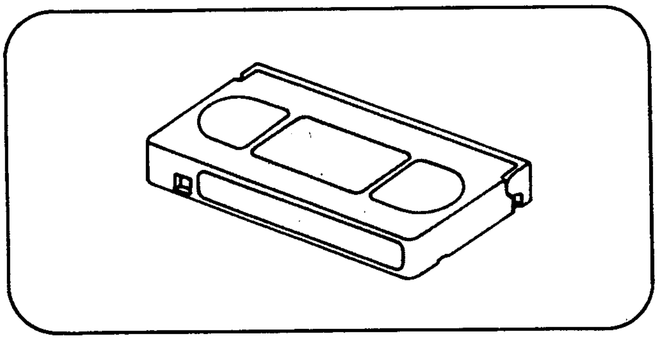


Fig. 1 Alignment Tape

9. Pattern Generator : PAL color bar. 100% White.

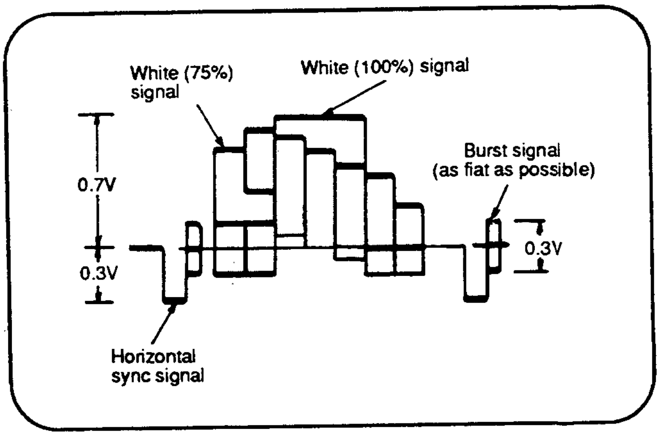
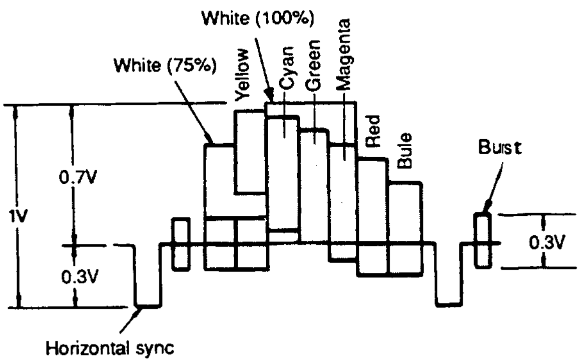
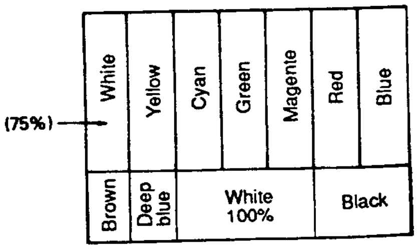

White (75%) signal
White (100%) signal
Burst signal (as fiat as possible)
0.7V
0.3V
0.3V
Horizontal sync signal

Fig. 2 Color bar signal of pattern generator

(Color Bar Signal)
The 75% color bar signal recorded on the alignment tape is shown in Fig. 3.


White (100%)
White (75%)
Yellow
Cyan
Green
Magenta
Red
Bule
Burst
0.7V
1V
0.3V
0.3V
Horizontal sync

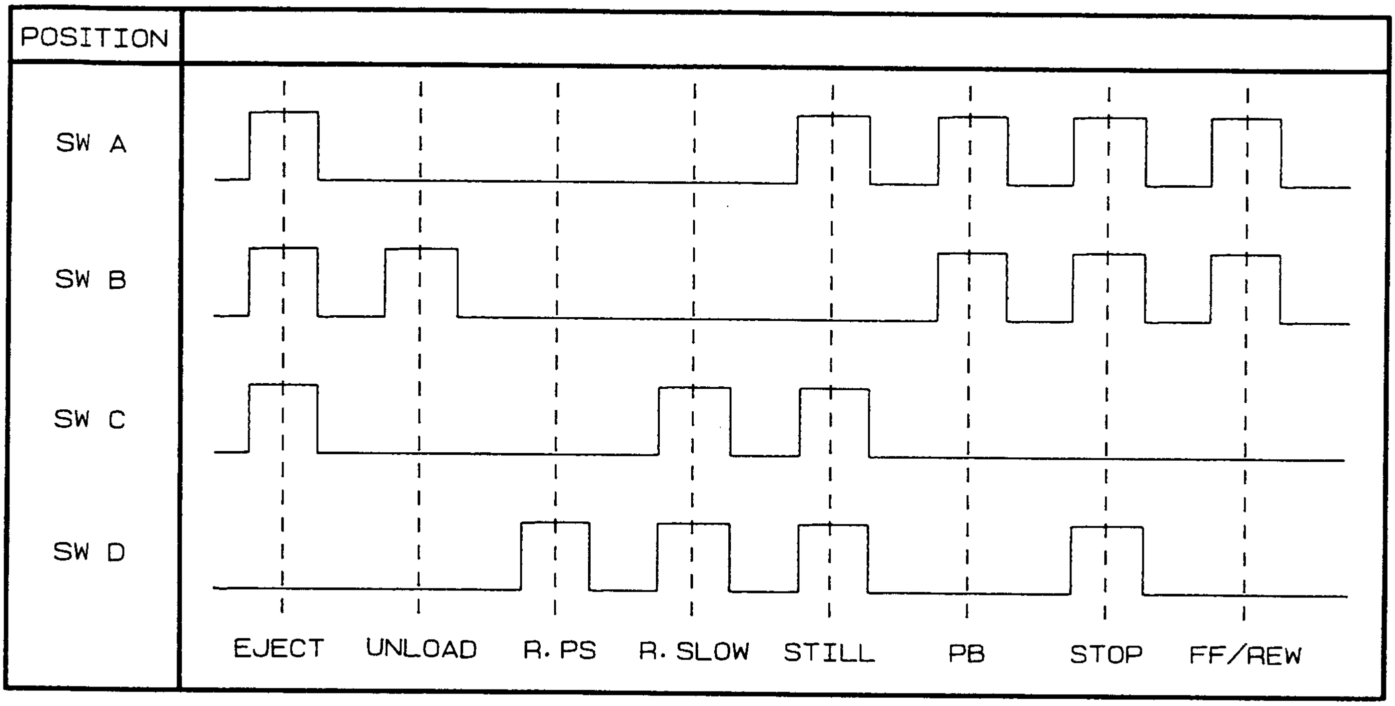
Color bar signal waveform


(75%)
White
Yellow
Cyan
Green
Magente
Red
Blue
Brown
Deep blue
White 100%
Black

Color bar pattern

Fig. 3 Color bar signal of alignment tape

4-2. PROGRAM SWITCH TIMING CHART



MODE (OPERATION CONDITION)	SWITCH POSITION	IC606			
		A	B	C	D
EJECT	EJECT	H	H	H	L
UNLOAD	UNLOAD	L	H	L	L
R. PS	R. PS	L	L	L	H
R. SLOW	R. SLOW	L	L	H	H
STILL	STILL	H	L	H	H
PLAY· FPS· REC	PB	H	H	L	L
STOP	STOP	H	H	L	H
FF/REW	FF/REW	H	H	L	L

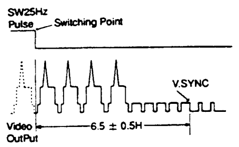
4-3. SERVO & TUNER SECTION

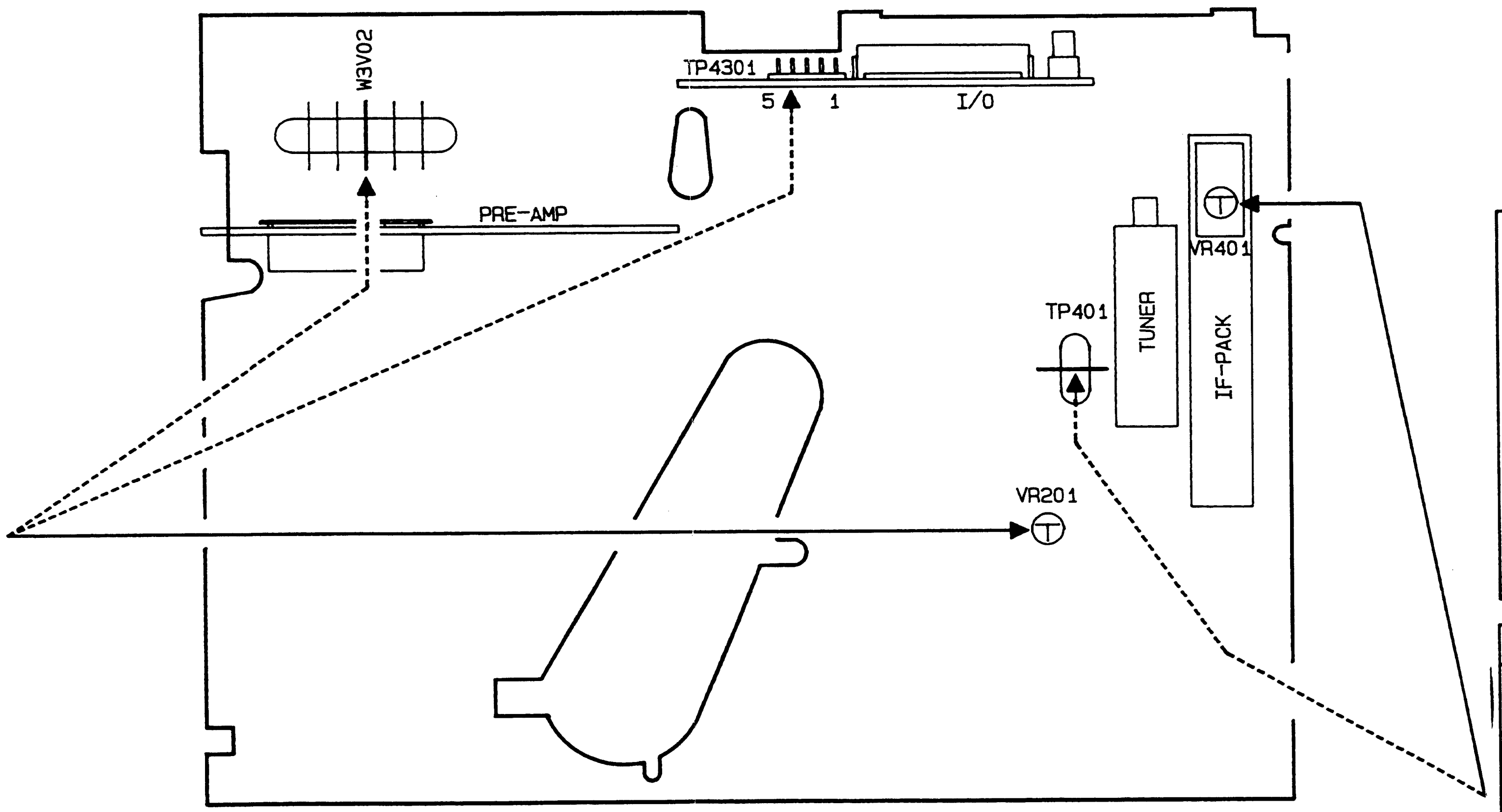
STEP	ADJUSTMENT ITEM
1. MODE and INPUT SIGNAL/ALIGNMENT TAPE 2. TEST POINT and ADJ. part 3. RESULT & REMARKS	

ADJ. part →
Test Point - - →

1 SWITCHING POINT

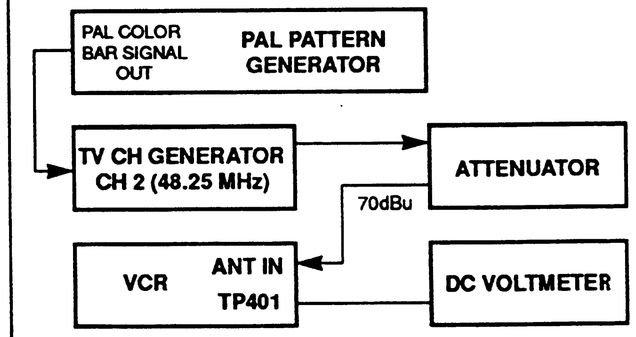
1. "PB", Alignment tape SR2-2
2. W3V02 (Main PCB), TP4301 - 4 pin (I/O PCB) & VR201 (Main PCB)
3. * Connect an oscilloscope's CH-1 to W3V02 for triggering and CH-2 to TP4301 - 4 pin.
   * Adjust VR201 so that the switching point is positioned 6.5 ± 0.5 H from the V-SYNC left edge as shown.




W3V02
TP4301
5
1
I/O
PRE-AMP
TP401
TUNER
VR401
IF-PACK
VR201

MAIN PCB

*** Composition for RF AGC Adjustment**


PAL COLOR BAR SIGNAL OUT
PAL PATTERN GENERATOR
TV CH GENERATOR CH 2 (48.25 MHz)
ATTENUATOR
70dBu
VCR
ANT IN TP401
DC VOLTMETER

3 RF AGC

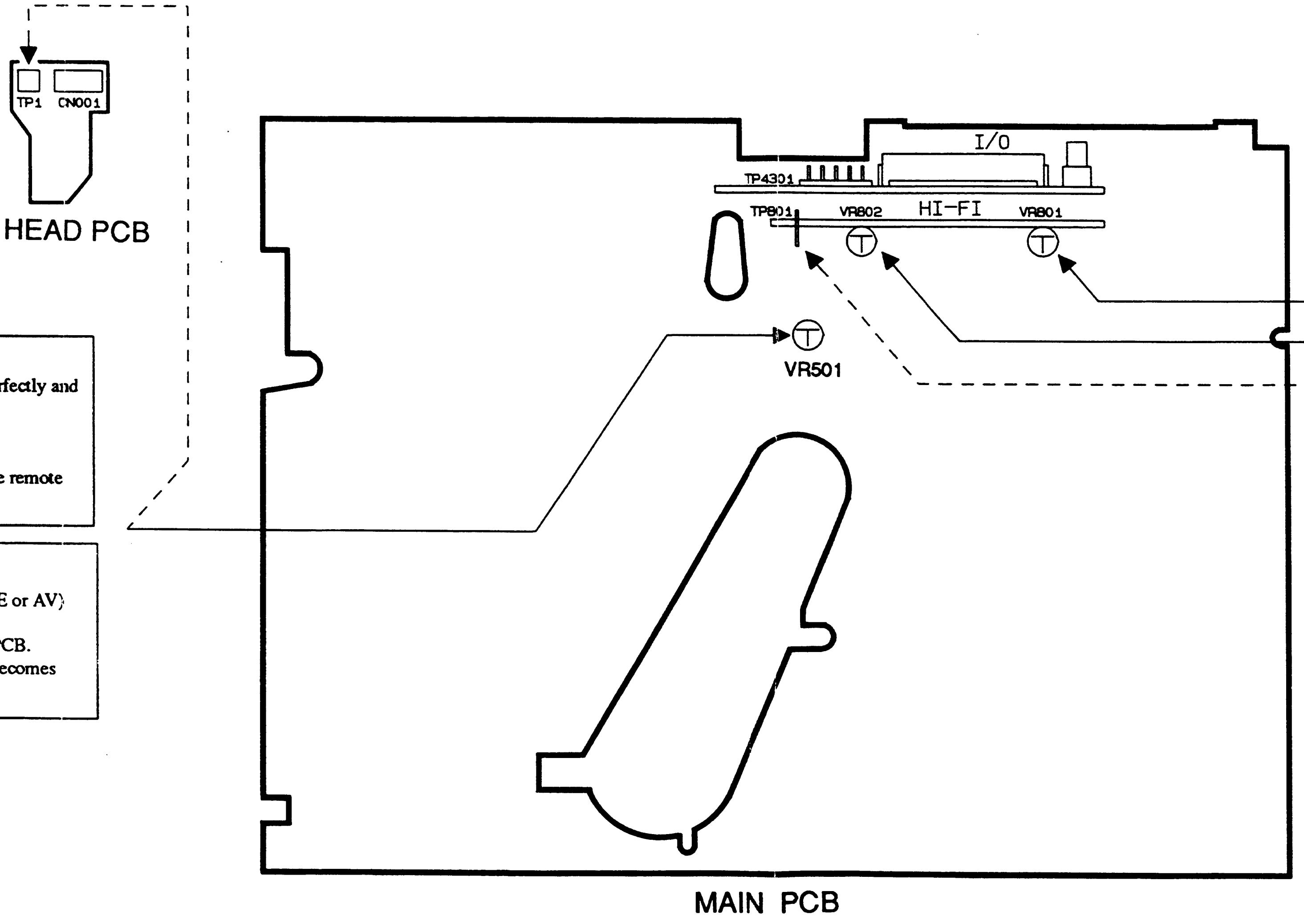
1. "E-E" (stop mode), RF signal
2. TP401 (Main PCB) & VR401 (VIF-PACK)
3. * Apply PAL color bar signal to the video input terminal of the TV channel generator and set channel selector to CH 2 (48.25 MHz).
   * Adjust the point signal level so that the output of attenuator is 70 dBu.
   * Apply the output of attenuator to the ANT IN terminal of VCR.
   * Set the channel of VCR to CH 2.
   * Connect DC voltmeter to TP401.
   * Adjust VR401 for DC 4.8 ± 0.1V.

4-4. LINEAR AUDIO & HI-FI AUDIO SECTION

STEP	ADJUSTMENT ITEM

1. MODE and INPUT SIGNAL/ALIGNMENT TAPE
2. TEST POINT and ADJ. part
3. RESULT & REMARKS

ADJ. part ⟶
Test Point - - - ▶



Precautionary items prior to adjustment

1. Perform the azimuth adjustment and height adjustment perfectly and then proceed the adjustment.
2. Audio monitor select switch on the panel front : LINEAR
3. Source input select : AU
   (How to set AU mode ; Press the input select button on the remote control.)

1	LINEAR AUDIO BIAS CURRENT

1."REC"(SP mode), 1KHz, -8dBm audio input (L-CH) (LINE or AV)
2. TP1 (A/C Head) & VR501 (Main PCB)
3. * Connect AC voltmeter probes to TP1 on the A/C Head PCB.
   * Adjust VR501 so that the reading on the AC voltmeter becomes 2.5mVrms.

Precautionary items prior to adjustment

1. Audio monitor select switch on the panel front : Hi-Fi
2. Source input select : AU
   (How to set AU mode ; Press the input select button on the remote control.)

2	Hi-Fi AUDIO CARRIER

1."E-E"(stop mode),
   L-CH ; 400Hz, -8dBm audio input (LINE or AV)
   R-CH ; 1KHz, -8dBm audio input (LINE or AV)
2. TP801 & VR801 (L-CH), VR802 (R-CH)
3. * Connect an audio analyzer probe to TP801.
   * Adjust VR801 (L-CH) so that the frequency is 1.4MHz ± 3.5KHz.
   * Adjust VR802 (R-CH) so that the frequency is 1.8MHz ± 3.5KHz.

5. ELECTRICAL PARTS LIST

5-1. GENERAL INFORMATION

1. Parts Replacement

> *Many electrical and mechanical parts in Video Cassette Recorder (Player) have special safety-related characteristics. These characteristics are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual ; electrical components having such features are identified by ⚠ in the replacement parts lists and schematic diagrams. The use of a replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.*

2. Unless otherwise specified :

1) All resistors are in ohms (Ω)

- K = 1,000
- M = 1,000K

* **RD** : 1/4W, ± 5% Carbon
* **RM** : 1/8W, ± 5% Metal-film

2) All capacitors are in ± 10%, MF = µF.

* CC : PF = uuF, Ceramic, Temp
* CK : PK = uuF, Ceramic, MK
* CS : Tantalium
* CQ : Polyester
* CE : Electrolytic

3) All coils are in microhenry (uH)

- 1mH = 1,000uH

3. ASS'Y = Assembly

4. ⚠ Mark : Safety related parts.

5. How to order replacement parts

To have your order filed promptly and correctly, please furnish the following informations.

1) Model Number
2) Location Number
3) Part Number
4) Description & Specification

5-2. ELECTRICAL REPLACEMENT PARTS LIST

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
600	69098-220-502	REGULATOR ASSY;PAL FREE CP2 FTZ W-2
	A6006-0007	POWER CORD;KJ 2X0.5MH CP-2
BD101	B4104-0060	DIODE-RECT;DF06M 720V 1A STICK BRIDGE
C101	B1102-0100	C-FILM;KNB 1530 0.22UF/AC250V
C102	61419-001-001	C-FILM;KNB1530 0.1UF/AC250V
C103	A1100-0450	C-CERAMIC;CK45B 400V 222M 12/SCE 2G 222M
C104	A1100-0450	C-CERAMIC;CK45B 400V 222M 12/SCE 2G 222M
C105	61659-611-101	C-ELECTROLYTIC;CE04W 100uF/400V
C106	A1102-0228	C-FILM;CF 922 N 630V T 473-K CF922NT2J473K
C107	A1100-0660	C-CERAMIC;CC 45 SL 1KV T 101-K 08ECFK
C108	61507-121-511	C-POLYESTER;CQ921M TAPG 100V 223-J
C109	61637-511-470	C-ELEC;CEAP 100V 47M SG(10X12.5)
C110	A1104-0364	C-ELEC;CE 04 C 25V 101-M
C111	A1100-0450	C-CERAMIC;CK45B 400V 222M 12/SCE 2G 222M
C112	A1100-0450	C-CERAMIC;CK45B 400V 222M 12/SCE 2G 222M
C113	A1104-0365	C-ELEC;CE 04 C 50V 331-M
C114	A1104-0289	C-ELEC;CE04C 10V 2200M STX10X20(105C)
C115	61637-505-331	C-ELEC;CEAP 25V 330M SG(10X12.5)
C116	A1104-0290	C-ELEC;CE04C 25V 1000M STX10X20(105C)
C117	61637-505-331	C-ELEC;CEAP 25V 330M SG(10X12.5)
C118	61637-508-470	C-ELEC;CEAP 50V 47M SG(6.3X11)
C119	61637-511-100	C-ELEC;CEAP 100V 10M SG(6.3X11)
C120	61637-504-101	C-ELEC;CEAP 16V 100M SG(6.3X11)
C121	61507-121-480	C-POLYESTER;CQ921M TAPG 100V 153-K
C122	A1104-0366	C-ELEC;CE 04 B 250V 2R2-M
C123	A1100-0450	C-CERAMIC;CK45B 400V 222M 12/SCE 2G 222M
C124	A1100-0450	C-CERAMIC;CK45B 400V 222M 12/SCE 2G 222M
CN101	A6010-0407	CONNECTOR-WAFER;28-5085-009-000 BLK
D101	B4102-0006	DIODE-FR;EG01C(3.3)V 500MA (0.1)US
D103	B4102-0029	DIODE-FR;EU02W 400V 1A 0.4US T
D104	B4102-0029	DIODE-FR;EU02W 400V 1A 0.4US T
D105	B4102-0033	DIODE-FR;UF4007 1000V 1A 75NS T
D106	B4102-0029	DIODE-FR;EU02W 400V 1A 0.4US T
D107	B4102-0005	DIODE-FR;FMP-G12S(1.15)V 5A (0.15)US
D108	B4102-0039	DIODE-FR;ERC90G-02YMG 200V 5A 35NS T
D109	B4102-0029	DIODE-FR;EU02W 400V 1A 0.4US T
D110	B4102-0029	DIODE-FR;EU02W 400V 1A 0.4US T
D111	B4102-0029	DIODE-FR;EU02W 400V 1A 0.4US T
F101	64709-085-040	FUSE;T1.6A 250V 218 5X20MM LT EUR
F102	64709-085-140	FUSE;T2A 250V 218 LF
IC101	B4010-0015	IC-HYBRID;STR11006 SMPS SIP
IC102	62119-401-313	IC;PQ12RF11
L101	64529-420-230	LINE FILTER;SHL 030
L102	A1130-0017	COIL-CHOCK;20UH MP
L103	64529-630-010	FILTER CHOKE;8PI
Q101	A4056-0019	TR-SWITCHING;2SD1207T 1W 150MHZ SI/NPN T
R101	A1014-0011	R-CEMENT;RWC 2R 2R7-K
R102	A1006-0458	R-CARBON;RD 1/4 T 753-J
R103	A1004-0196	R-CARBON;RD 1/2 T(S) 154-J
R104	A1014-0029	R-CEMENT;RWC 5W 683-J
R105	A1014-0044	R-CEMENT;RWC 2R 330-J
R106	B1004-0304	R-METAL OXIDE;RS 2 T 330-J ERG2SJ330E 33R
R107	A1014-0014	R-CEMENT;RMC 2 R(S) R47-K
R108	61048-277-102	R-CARBON;RD 1/4 T 102-J
R109	61048-277-102	R-CARBON;RD 1/4 T 102-J
R110	A1006-0550	R-CARBON;RD 1/4 T 5R1-J
R111	A1006-0457	R-CARBON;RD 1/4 T 120-J 12R
R112	A1006-0458	R-CARBON;RD 1/4 T 753-J
R113	61048-277-152	R-CARBON;RD 1/4 T 152-J
R115	B1004-0304	R-METAL OXIDE;RS 2 T 330-J ERG2SJ330E 33R
R116	61048-177-103	R-CARBON;RD 1/8 T 103-J
T101	A1206-0032	TRANS-SWITCHING;P:100-240V S:6.5-41V
ZD101	62169-423-096	DIODE-ZENER;MTZ 22D

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
	69099-625-400	ASSY REMOCON;NR2559
	64043-0051-00	DOOR-BATTERY RE;ABS94HB T2.0 BLK NR2559
	64043-0050-00	DOOR-HIDDEN;ABS94HB T1.5 BLK NR2559
CT1	61637-802-479	C-ELEC;CEAP 6.3V 4.7M SE(3X5)
CT2	61407-101-360	C-CERAMIC.TEMP;CC45 SL TAPG 50V 100-J
CT3	61407-101-360	C-CERAMIC.TEMP;CC45 SL TAPG 50V 100-J
DT1	62309-112-041	LED-IR;GL538
DT2	62309-112-041	LED-IR;GL538
ICT01	A4002-0064	IC-MCU;KS51800-05 VCR SOP
QT1	62137-702-020	TRANSISTOR;KSC 1008-Y TAPG
RT1	61048-177-109	R-CARBON;RD 1/8 T 010-J
RT2	61048-177-564	R-CARBON;RD 1/8 T 564-J
XT1	64539-102-311	CERAMIC RESONATOR;CSB455EBL/KBR455BKTL

****

670	69373-302-214	ASSY TIMER;X-3 PAL/MESECAM
	63054-314-130	FFC CABLE;BNCD=1.25-K-14P 130MM
	63054-327-130	FFC CABLE;BNCD=1.25-K-27P-130M/M
	63054-316-150	FFC CABLE;BNCD=1.25-K-16P-150M/M
	63053-916-560	LEAD CONNECTOR ASSY;60-8283/60-8283 6P
C701	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C702	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C703	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C704	61407-101-320	C-CERAMIC.TEMP;CC45 SL TAPG 50V 82-J
C705	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C706	A1100-0561	C-CERAMIC;CK OA Y 50V T 2200-N
C707	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C708	A1100-0561	C-CERAMIC;CK OA Y 50V T 2200-N
C709	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C710	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 0.01-N
C711	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C712	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
CN701	B6010-0359	CONNECTOR-WAFER;HLEM-27R-1 BLK
CN702	B6010-0361	CONNECTOR-WAFER;HLEM-16R-1 BLK
CN704	B6010-0618	CONNECTOR-WAFER;5597-14CPB WHT
CN706	63349-604-130	CONNECTOR WAFER;53014-0310
D701	62169-406-482	DIODE;1N4148 SAMSUNG
D702	62169-406-482	DIODE;1N4148 SAMSUNG
D703	62169-406-482	DIODE;1N4148 SAMSUNG
D704	62169-406-482	DIODE;1N4148 SAMSUNG
D705	62169-406-482	DIODE;1N4148 SAMSUNG
D706	62169-406-482	DIODE;1N4148 SAMSUNG
D707	62169-406-482	DIODE;1N4148 SAMSUNG
D708	62169-406-482	DIODE;1N4148 SAMSUNG
D709	62169-406-482	DIODE;1N4148 SAMSUNG
D710	62169-406-482	DIODE;1N4148 SAMSUNG
D711	62169-406-482	DIODE;1N4148 SAMSUNG
D712	62169-406-482	DIODE;1N4148 SAMSUNG
D713	62169-406-482	DIODE;1N4148 SAMSUNG
D714	62169-406-482	DIODE;1N4148 SAMSUNG
D715	62169-406-482	DIODE;1N4148 SAMSUNG
D716	62169-102-057	DIODE-SHOTTKY;1SS108TA
D717	62169-406-482	DIODE;1N4148 SAMSUNG
D718	62169-406-482	DIODE;1N4148 SAMSUNG
D720	62169-406-482	DIODE;1N4148 SAMSUNG
D721	62169-406-482	DIODE;1N4148 SAMSUNG
D722	62169-406-482	DIODE;1N4148 SAMSUNG
D724	62169-406-482	DIODE;1N4148 SAMSUNG
D726	62169-406-482	DIODE;1N4148 SAMSUNG
D727	62169-406-482	DIODE;1N4148 SAMSUNG
D728	62169-406-482	DIODE;1N4148 SAMSUNG
DT701	A4153-0042	V.F.DISPLAY;SVV-10BS03VTR
IC701	62119-401-872	IC;LM393

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
JA701	A3040-0085	JACK-PIN;PI4 DSPS-8805-03Y 3P GOLD
JA702	A3040-0084	JACK-PIN;PI4 DSPS-8805-03W 3P GOLD
JA703	A3040-0083	JACK-PIN;PI4 DSPS-8805-03 R GOLD 3P
L701	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG
L702	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG
LD703	62309-110-340	LED;GL-3HD7/GL3HD8
R701	61048-177-683	R-CARBON;RD 1/8 T 683-J
R702	61048-177-683	R-CARBON;RD 1/8 T 683-J
R703	61048-177-683	R-CARBON;RD 1/8 T 683-J
R704	61048-177-683	R-CARBON;RD 1/8 T 683-J
R705	61048-177-683	R-CARBON;RD 1/8 T 683-J
R706	61048-177-683	R-CARBON;RD 1/8 T 683-J
R707	61048-177-683	R-CARBON;RD 1/8 T 683-J
R708	61048-177-683	R-CARBON;RD 1/8 T 683-J
R709	61048-177-104	R-CARBON;RD 1/8 T 104-J
R710	61048-177-104	R-CARBON;RD 1/8 T 104-J
R711	61048-177-104	R-CARBON;RD 1/8 T 104-J
R712	61048-177-224	R-CARBON;RD 1/8 T 224-J
R713	61048-177-153	R-CARBON;RD 1/8 T 153-J
R714	61048-177-753	R-CARBON;RD 1/8 T 753-J
R715	61048-177-102	R-CARBON;RD 1/8 T 102-J
R716	61048-177-562	R-CARBON;RD 1/8 T 562-J
R717	61048-177-562	R-CARBON;RD 1/8 T 562-J
R718	61048-177-103	R-CARBON;RD 1/8 T 103-J
R719	61048-177-221	R-CARBON;RD 1/8 T 221-J
R720	61048-177-221	R-CARBON;RD 1/8 T 221-J
R721	61048-277-101	R-CARBON;RD 1/4 T 101-J
R722	61048-177-750	R-CARBON;RD 1/8 T 750-J
R723	61048-177-224	R-CARBON;RD 1/8 T 224-J
R724	A1006-0550	R-CARBON;RD 1/4 T 5R1-J
R725	61048-177-153	R-CARBON;RD 1/8 T 153-J
R726	61048-177-153	R-CARBON;RD 1/8 T 153-J
R727	61048-177-153	R-CARBON;RD 1/8 T 153-J
R728	61048-277-101	R-CARBON;RD 1/4 T 101-J
R729	61048-177-153	R-CARBON;RD 1/8 T 153-J
R730	61048-177-302	R-CARBON;RD 1/8 T 302-J
R731	61048-177-302	R-CARBON;RD 1/8 T 302-J
RM701	A1294-0015	MODULE-REMOCON;GP1U781R/ASAN 38KHZ
RN701	61069-611-110	R-NETWORK;RN 1/8 X 12P 104-J(RMLS1-104J)
SW730	63599-016-070	SW-TACT;EVQ-QS2 05K
SW731	63599-016-070	SW-TACT;EVQ-QS2 05K
SW732	63599-016-070	SW-TACT;EVQ-QS2 05K
SW733	63599-016-070	SW-TACT;EVQ-QS2 05K
SW734	63599-016-070	SW-TACT;EVQ-QS2 05K
SW735	63599-016-070	SW-TACT;EVQ-QS2 05K
SW736	63599-016-070	SW-TACT;EVQ-QS2 05K
SW736	A3006-0045	SW-SLIDE;2C2P SH 12H SSAF022
SW738	A3006-0046	SW-SLIDE;2C3P SH 24H SSAF023
SW739	A3006-0046	SW-SLIDE;2C3P SH 24H SSAF023
SW740	A3006-0045	SW-SLIDE;2C2P SH 12H SSAF022
VR702	A1048-0017	VR-ROTARY.MOLD;VK9-1R(PV)N 15F-B20K 20KB
ZD702	62169-423-092	DIODE-ZENER;MTZ 6.8B/UZ 6.8BH

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600	69357-302-269	ASSY MAIN:X-3 PAL/MESECAM

POWER PARTS

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
C151	61637-505-331	C-ELEC;CEAP 25V 330M SG(10X12.5)
C152	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C153	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 203ZT
CN151	A6010-0406	CONNECTOR-WAFER;18-5085-009-000 BLK
D151	62169-406-482	DIODE;1N4148 SAMSUNG
D152	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D153	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D156	62169-406-482	DIODE;1N4148 SAMSUNG
D157	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D158	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D160	62169-901-095	DIODE-CHIP;DAN202K (T96)
D162	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D163	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
Q151	62137-302-441	TRANSISTOR;KSC 2328-Y TAPG
Q152	62137-302-441	TRANSISTOR;KSC 2328-Y TAPG
Q153	62137-302-441	TRANSISTOR;KSC 2328-Y TAPG
Q154	62147-401-835	TRANSISTOR;KSA 928A-Y TAPG
Q155	62147-101-950	TRANSISTOR;KSA 643-Y TAPG
Q156	62137-701-012	TRANSISTOR;KSR 1003 TAPG
Q157	62147-401-835	TRANSISTOR;KSA 928A-Y TAPG
Q158	62137-701-012	TRANSISTOR;KSR 1003 TAPG
Q159	62147-101-950	TRANSISTOR;KSA 643-Y TAPG
Q160	62137-701-012	TRANSISTOR;KSR 1003 TAPG
Q161	62147-101-950	TRANSISTOR;KSA 643-Y TAPG
Q162	62137-701-012	TRANSISTOR;KSR 1003 TAPG
Q163	62137-302-441	TRANSISTOR;KSC 2328-Y TAPG
R151	61048-177-561	R-CARBON;RD 1/8 T 561-J
R152	61048-277-221	R-CARBON;RD 1/4 T 221-J
R153	61048-177-102	R-CARBON;RD 1/8 T 102-J
R154	61048-177-561	R-CARBON;RD 1/8 T 561-J
R155	61048-177-102	R-CARBON;RD 1/8 T 102-J
R156	61048-177-122	R-CARBON;RD 1/8 T 122-J
R157	61048-177-152	R-CARBON;RD 1/8 T 152-J
R159	61048-177-152	R-CARBON;RD 1/8 T 152-J
R160	61048-177-392	R-CARBON;RD 1/8 T 392-J
R161	61048-177-102	R-CARBON;RD 1/8 T 102-J
R162	61048-277-272	R-CARBON;RD 1/4 T 272-J
R163	61079-917-223	R-CHIP;RH C2012 CS 223-J
R166	61048-277-821	R-CARBON;RD 1/4 T 821-J
ZD151	62169-403-821	DIODE-ZENER;MTZ 5.1B
ZD152	A4106-0064	DIODE-ZENER;UZ-5.6BCC 5.6V 20MAT

SYSTEM CONTROL PARTS

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
C601	A1100-0017	C-CERAMIC.CHP;2012F 104Z
C602	A1100-0086	C-CERAMIC.CHP;2012C 120J
C603	A1100-0086	C-CERAMIC.CHP;2012C 120J
C604	61627-402-471	C-ELEC;CEAP 6.3V 470M RSS(6.3X7)
C605	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C606	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C607	B1104-0294	C-ELEC;CE 03 E 5.5V T 104F Z SUPER/EECS5R5T104
C608	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C610	A1100-0017	C-CERAMIC.CHP;2012F 104Z
C611	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C620	A1100-0010	C-CERAMIC.CHP;2012B 102K
C621	A1100-0009	C-CERAMIC.CHP;2012C 101J
C640	A1100-0015	C-CERAMIC.CHP;2012B 152K
C641	A1100-0015	C-CERAMIC.CHP;2012B 152K
C643	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C644	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C645	A1100-0017	C-CERAMIC.CHP;2012F 104Z
CN601	B6010-0360	CONNECTOR-WAFER;HLEM-27S-1 BLK
CN602	B6010-0415	CONNECTOR-WAFER;HLEM 16S-1 BLK
CN603	B6010-0256	CONNECTOR WAFER;52556-0790 WHT
D601	62169-406-482	DIODE;1N4148 SAMSUNG
D604	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D606	A4106-0065	DIODE-ZENER;UZP-27BH 27V 30MAT(1W)
IC601	B4002-0208	IC-MCU;HD6433724-B41F VX-380 QFP
IC602	62119-401-300	IC;KA8301(N.M)
IC603	62119-401-186	IC;KM93C46
IC604	62119-101-770	IC;TC4094BP/CD4094BCN
IC605	62119-101-770	IC;TC4094BP/CD4094BCN
IC606	62119-103-712	IC;TC4021BP
IC607	A4008-0754	IC;KA7533
L601	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K
L610	62429-958-860	INDUCTOR FERRITE BEAD;BL01RN1-A62 T5
LD601	62309-112-043	LED IR;GL-451(SHARP)
Q601	62137-103-380	TRANSISTOR;KSA 733-Y TAPG

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
Q602	62137-701-013	TRANSISTOR;KSR 1004 TAPG
Q604	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q641	62129-101-172	TRANSISTOR.CHIP;KSC 1623G(REEL)
Q643	66219-0010-00	SENSOR-PHOTO TRANSISTOR;PT 493F
Q644	66219-0010-00	SENSOR-PHOTO TRANSISTOR;PT 493F
Q645	66419-0001-00	INTERUPTER-PHOTO;SG-105LF
Q646	66419-0001-00	INTERUPTER-PHOTO;SG-105LF
R601	61079-917-122	R-CHIP;RH C2012 CS 122-J
R602	A1020-0315	R-MG.CHIP;RMC 1/10 51K-J
R604	61079-917-682	R-CHIP;RH C2012 CS 682-J
R605	61079-917-220	R-CHIP;RH C2012 CS 220-J
R606	61079-917-102	R-CHIP;RH C2012 CS 102-J
R607	61079-917-102	R-CHIP;RH C2012 CS 102-J
R608	61079-917-102	R-CHIP;RH C2012 CS 102-J
R609	61079-917-472	R-CHIP;RH C2012 CS 472-J
R611	61079-917-683	R-CHIP;RH C2012 CS 683-J
R612	61079-917-511	R-CHIP;RH C2012 CS 511-J
R613	61079-917-220	R-CHIP;RH C2012 CS 220-J
R614	61079-917-472	R-CHIP;RH C2012 CS 472-J
R618	61079-917-472	R-CHIP;RH C2012 CS 472-J
R619	61079-917-472	R-CHIP;RH C2012 CS 472-J
R620	61079-917-102	R-CHIP;RH C2012 CS 102-J
R630	B1004-0229	R-METAL OXIDE;RS 1R 7.5-J/ERX1SJ7R5E
R631	B1004-0229	R-METAL OXIDE;RS 1R 7.5-J/ERX1SJ7R5E
R632	61079-917-101	R-CHIP;RH C2012 CS 101-J
R633	61048-177-102	R-CARBON;RD 1/8 T 102-J
R634	61079-917-000	R-CHIP;RH C2012 CS 000-J
R635	61048-177-102	R-CARBON;RD 1/8 T 102-J
R636	61048-177-102	R-CARBON;RD 1/8 T 102-J
R637	61048-177-561	R-CARBON;RD 1/8 T 561-J
R638	61079-917-681	R-CHIP;RH C2012 CS 681-J
R639	61079-917-105	R-CHIP;RH C2012 CS 105-J
R640	61079-917-224	R-CHIP;RH C2012 CS 224-J
R641	61079-917-224	R-CHIP;RH C2012 CS 224-J
R642	61079-917-203	R-CHIP;RH C2012 CS 203-J
R643	61079-917-472	R-CHIP;RH C2012 CS 472-J
R644	61079-917-472	R-CHIP;RH C2012 CS 472-J
R645	61079-917-472	R-CHIP;RH C2012 CS 472-J
R646	61079-917-472	R-CHIP;RH C2012 CS 472-J
R648	61079-917-391	R-CHIP;RH C2012 CS 391-J
R649	61079-917-274	R-CHIP;RH C2012 CS 274-J
R650	61079-917-224	R-CHIP;RH C2012 CS 224-J
R651	61079-917-391	R-CHIP;RH C2012 CS 391-J
R652	61079-917-221	R-CHIP;RH C2012 CS 221-J
R653	61079-917-224	R-CHIP;RH C2012 CS 224-J
R655	61079-917-304	R-CHIP;RH C2012 CS 304-J
R660	61079-917-102	R-CHIP;RH C2012 CS 102-J
R661	61048-177-102	R-CARBON;RD 1/8 T 102-J
R662	61079-917-102	R-CHIP;RH C2012 CS 102-J
R663	61079-917-102	R-CHIP;RH C2012 CS 102-J
R664	61079-917-681	R-CHIP;RH C2012 CS 681-J
R670	61079-917-102	R-CHIP;RH C2012 CS 102-J
R671	61079-917-102	R-CHIP;RH C2012 CS 102-J
R672	61048-177-102	R-CARBON;RD 1/8 T 102-J
R673	61048-177-102	R-CARBON;RD 1/8 T 102-J
R674	61048-177-102	R-CARBON;RD 1/8 T 102-J
R675	61079-917-102	R-CHIP;RH C2012 CS 102-J
R676	61079-917-102	R-CHIP;RH C2012 CS 102-J
R677	61079-917-102	R-CHIP;RH C2012 CS 102-J
R678	61048-177-102	R-CARBON;RD 1/8 T 102-J
R679	61079-917-102	R-CHIP;RH C2012 CS 102-J
R680	61079-917-102	R-CHIP;RH C2012 CS 102-J
R681	61048-177-102	R-CARBON;RD 1/8 T 102-J
R682	61079-917-102	R-CHIP;RH C2012 CS 102-J
R683	61048-177-102	R-CARBON;RD 1/8 T 102-J
R684	61079-917-102	R-CHIP;RH C2012 CS 102-J
R685	61079-917-102	R-CHIP;RH C2012 CS 102-J
R686	61079-917-102	R-CHIP;RH C2012 CS 102-J
R687	61079-917-102	R-CHIP;RH C2012 CS 102-J
R688	61079-917-102	R-CHIP;RH C2012 CS 102-J
R689	61048-177-102	R-CARBON;RD 1/8 T 102-J
R690	61079-917-681	R-CHIP;RH C2012 CS 681-J
R691	61079-917-102	R-CHIP;RH C2012 CS 102-J
R692	61048-177-102	R-CARBON;RD 1/8 T 102-J
R693	61048-177-102	R-CARBON;RD 1/8 T 102-J
R694	61048-177-102	R-CARBON;RD 1/8 T 102-J
SW640	66209-0008-00	SWITCH-REC;MPU 10105 MMBO 5V
W652	61048-177-102	R-CARBON;RD 1/8 T 102-J
W655	61048-177-682	R-CARBON;RD 1/8 T 682-J
XT601	B1283-0018	RESONATOR-CERAMIC;8MHZ EF0GC8004T5 3/CN
XT602	64539-021-009	CRYSTAL;32.768KHZ

SERVO PARTS

C201	61507-121-551	C-POLYESTER;CQ921M TAPG 50V 473-J
C202	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C203	61453-131-392	C-CERAMIC.CHP;0805 5C 392KAT MA
C204	61453-130-474	C-CERAMIC.CHP;0805 5C 473MAT 050M
C205	61637-204-220	C-ELEC;CEAP 16V 22M SA
C206	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)
C207	61627-204-479	C-ELEC;CEAP 16V 4.7M NP(4X7)
C208	A1100-0015	C-CERAMIC.CHP;2012B 152K
C209	61507-121-551	C-POLYESTER;CQ921M TAPG 50V 473-J
C210	61453-131-471	C-CERAMIC.CHP;0805 5A 470JAT MA
C211	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C212	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C213	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C214	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C215	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C216	A1100-0015	C-CERAMIC.CHP;2012B 152K
C217	A1100-0010	C-CERAMIC.CHP;2012B 102K
C218	A1100-0044	C-CERAMIC.CHP;2012B 223K
C219	61627-204-479	C-ELEC;CEAP 16V 4.7M NP(4X7)
C22	A1100-0017	C-CERAMIC.CHP;2012F 104Z
C220	61407-101-440	C-CERAMIC.TEMP;CC45 SL TAPG 50V 220-J
C221	61453-131-271	C-CERAMIC.CHP;0805 5A 271JAT MA
C222	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)
C223	61637-204-220	C-ELEC;CEAP 16V 22M SA
C224	61507-121-341	C-POLYESTER;CQ921M TAPG 50V 102-J
C225	B1102-0112	C-FILM;CQ298PVT 224J/ECQV1H224JZ3
C226	61507-121-341	C-POLYESTER;CQ921M TAPG 50V 102-J
C227	A1100-0010	C-CERAMIC.CHP;2012B 102K
C228	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)
C229	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C230	61637-204-220	C-ELEC;CEAP 16V 22M SA
C231	61637-204-220	C-ELEC;CEAP 16V 22M SA
CN201	A6010-0092	CONNECTOR-WAFER;00-8283-0612-00 WHT 6P
CN202	B6010-0254	CONNECTOR WAFER;52556-0990 WHT
D201	62169-406-482	DIODE;1N4148 SAMSUNG
D202	62169-406-482	DIODE;1N4148 SAMSUNG
D203	62169-406-482	DIODE;1N4148 SAMSUNG
D204	62169-406-482	DIODE;1N4148 SAMSUNG
D205	62169-406-482	DIODE;1N4148 SAMSUNG
D206	62169-406-482	DIODE;1N4148 SAMSUNG
D207	62169-406-482	DIODE;1N4148 SAMSUNG
D208	62169-403-830	DIODE-ZENER;MTZ6.2B
D209	62169-403-830	DIODE-ZENER;MTZ6.2B
D216	62169-406-482	DIODE;1N4148 SAMSUNG
IC201	A4012-0106	IC-LINEAR;KA8321 SIP VTR SERVO
Q201	62129-101-173	TRANSISTOR.CHP;KSR 1104(REEL)
Q202	62129-101-173	TRANSISTOR.CHP;KSR 1104(REEL)
Q203	62129-301-109	TRANSISTOR.CHP;KSR 2103-(REEL)
Q204	62129-101-173	TRANSISTOR.CHP;KSR 1104(REEL)
R201	61079-917-102	R-CHIP;RH C2012 CS 102-J
R203	61079-917-912	R-CHIP;RH C2012 CS 912-J
R205	61079-917-822	R-CHIP;RH C2012 CS 822-J

LOCA.NO	PART-NUMBER	DESCRPTION;SPECIFICATION
R206	61079-917-472	R-CHIP;RH C2012 CS 472-J
R207	61079-917-154	R-CHIP;RH C2012 CS 154-J
R208	61079-917-394	R-CHIP;RH C2012 CS 394-J
R209	61079-917-683	R-CHIP;RH C2012 CS 683-J
R210	61079-917-393	R-CHIP;RH C2012 CS 393-J
R211	61079-917-105	R-CHIP;RH C2012 CS 105-J
R212	61079-917-334	R-CHIP;RH C2012 CS 334-J
R213	61079-917-103	R-CHIP;RH C2012 CS 103-J
R214	61079-917-102	R-CHIP;RH C2012 CS 102-J
R215	61079-917-105	R-CHIP;RH C2012 CS 105-J
R216	61079-917-105	R-CHIP;RH C2012 CS 105-J
R217	61079-917-564	R-CHIP;RH C2012 CS 564-J
R218	61079-917-473	R-CHIP;RH C2012 CS 473-J
R219	61079-917-302	R-CHIP;RH C2012 CS 302-J
R220	61079-917-561	R-CHIP;RH C2012 CS 561-J
R222	61079-917-102	R-CHIP;RH C2012 CS 102-J
R223	61079-917-202	R-CHIP;RH C2012 CS 202-J
R224	61079-917-105	R-CHIP;RH C2012 CS 105-J
R225	61079-917-103	R-CHIP;RH C2012 CS 103-J
R226	61079-917-431	R-CHIP;RH C2012 CS 431-J
R227	61079-917-431	R-CHIP;RH C2012 CS 431-J
R228	61079-917-474	R-CHIP;RH C2012 CS 474-J
R229	61079-917-823	R-CHIP;RH C2012 CS 823-J
R230	61079-917-823	R-CHIP;RH C2012 CS 823-J
R231	61079-917-183	R-CHIP;RH C2012 CS 183-J
R232	61079-917-154	R-CHIP;RH C2012 CS 154-J
R233	61079-917-243	R-CHIP;RH C2012 CS 243-J
R234	61079-917-561	R-CHIP;RH C2012 CS 561-J
R235	61079-917-683	R-CHIP;RH C2012 CS 683-J
R236	61079-917-224	R-CHIP;RH C2012 CS 224-J
R237	61079-917-103	R-CHIP;RH C2012 CS 103-J
R238	61079-917-222	R-CHIP;RH C2012 CS 222-J
R239	61079-917-752	R-CHIP;RH C2012 CS 752-J
R240	61079-917-822	R-CHIP;RH C2012 CS 822-J
R241	61079-917-912	R-CHIP;RH C2012 CS 912-J
R242	61079-917-433	R-CHIP;RH C2012 CS 433-J
R243	61079-917-331	R-CHIP;RH C2012 CS 331-J
R244	61079-917-433	R-CHIP;RH C2012 CS 433-J
R245	61079-917-334	R-CHIP;RH C2012 CS 334-J
R246	61079-917-223	R-CHIP;RH C2012 CS 223-J
R247	61079-917-181	R-CHIP;RH C2012 CS 181-J
R248	61079-917-562	R-CHIP;RH C2012 CS 562-J
R249	61079-917-682	R-CHIP;RH C2012 CS 682-J
R271	61079-917-102	R-CHIP;RH C2012 CS 102-J
VR201	61246-105-473	VR-SEMI;RH0615C 47KB

AUDIO PARTS

LOCA.NO	PART-NUMBER	DESCRPTION;SPECIFICATION
C501	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)
C502	61617-405-470	C-ELECTROLYTIC;CE04W TAPG 25V 47M(RSS 6.3X7)
C503	61617-405-470	C-ELECTROLYTIC;CE04W TAPG 25V 47M(RSS 6.3X7)
C504	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C505	61507-121-481	C-POLTESTER;CQ921M TAPG 50V 153-J
C506	61507-121-551	C-POLYESTER;CQ921M TAPG 50V 473-J
C507	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C508	61507-121-460	C-POLYESTER;CQ921M TAPG 100V 822-K
C509	61507-121-451	C-POLYESTER;CQ921M TAPG 100V 682-J
C510	61507-121-451	C-POLYESTER;CQ921M TAPG 100V 682-J
C511	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)
C512	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C513	61637-208-229	C-ELEC;CEAP 50V 2.2M SA (5X11)
C514	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
C515	61637-204-330	C-ELEC;CEAP 16V 33M SA(5X11)
C516	61637-208-478	C-ELEC;CEAP 50V 0.47M SA(5X11)
C518	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)
C519	61507-121-371	C-POLYESTER;CQ921M TAPG 50V 182-J
C520	A1100-0044	C-CERAMIC.CHIP;2012B 223K
C521	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
C522	61507-121-371	C-POLYESTER;CQ921M TAPG 50V 182-J
C524	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
C525	B1102-0126	C-FILM;CQ982P 100V T 682J-40/85 ECQB1682JF3
C526	61507-121-350	C-POLTESTER;CQ921M TAPG 100V 122-K
C527	61453-131-221	C-CERAMIC.CHIP;0805 5A 221JAT MA
C528	61637-205-470	C-ELEC;CEAP 25V 47M SA(6X11)
CD1	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
CD2	B1102-0113	C-FILM;CQ298PVT 473J/ECQV1473JZ3
CD3	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
CD4	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
CD5	61507-121-431	C-POLYESTER;CQ921M TAPG 50V 472-J
CN501	63054-307-160	FLAT WIRE;UL2878 #26-07P 160
CN502	B6010-0436	CONNECTOR-WAFER;TMC-E02X-A1 BLK STICK
IC501	62119-103-685	IC;LA7295
L501	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
L502	62427-813-153	COIL-PEAKING;EL0607RA 15mH-J
L503	62427-813-153	COIL-PEAKING;EL0607RA 15mH-J
L504	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
LD01	62429-833-101	COIL-PEAKING AXIAL;BALO4ST 101K
LD02	62429-014-110	COIL BIAS OSC;B01 70KHZ B(TOKO)VX1850
OSC501	62429-014-109	COIL BIAS OSC;B01 70KHZ B(TOKO)VX1850
Q501	62137-702-020	TRANSISTOR;KSC 1008-Y TAPG
Q503	62129-101-172	TRANSISTOR.CHIP;KSC 1623G(REEL)
QD1	62137-702-020	TRANSISTOR;KSC 1008-Y TAPG
R501	61079-917-103	R-CHIP;RH C2012 CS 103-J
R502	61048-177-203	R-CARBON;RD 1/8 T 203-J
R503	61079-917-361	R-CHIP;RH C2012 CS 361-J
R504	61079-917-332	R-CHIP;RH C2012 CS 332-J
R505	61079-917-331	R-CHIP;RH C2012 CS 331-J
R506	61079-917-363	R-CHIP;RH C2012 CS 363-J
R507	61048-177-122	R-CARBON;RD 1/8 T 122-J
R508	61079-917-223	R-CHIP;RH C2012 CS 223-J
R509	61079-917-822	R-CHIP;RH C2012 CS 822-J
R510	61079-917-475	R-CHIP;RH C2012 CS 475-J
R511	61048-177-223	R-CARBON;RD 1/8 T 223-J
R512	61079-917-392	R-CHIP;RH C2012 CS 392-J
R513	61079-917-562	R-CHIP;RH C2012 CS 562-J
R514	61079-917-562	R-CHIP;RH C2012 CS 562-J
R515	61079-917-822	R-CHIP;RH C2012 CS 822-J
R516	61079-917-334	R-CHIP;RH C2012 CS 334-J
R517	61079-917-101	R-CHIP;RH C2012 CS 101-J
R518	61079-917-561	R-CHIP;RH C2012 CS 561-J
R519	61079-917-152	R-CHIP;RH C2012 CS 152-J
R520	61079-917-363	R-CHIP;RH C2012 CS 363-J
R521	61079-917-478	R-CHIP;RH C2012 CS 4R7-J
R522	61079-917-473	R-CHIP;RH C2012 CS 473-J
R525	61079-917-122	R-CHIP;RH C2012 CS 122-J
R527	61079-917-682	R-CHIP;RH C2012 CS 682-J
RD1	61048-177-479	R-CARBON;RD 1/8 T 4R7-J
RD2	61048-177-223	R-CARBON;RD 1/8 T 223-J
VR501	61246-105-473	VR-SEMI;RH0615C 47KB

TUNER PARTS

LOCA.NO	PART-NUMBER	DESCRPTION;SPECIFICATION
J4A1	63054-401-673	IF CABLE ASSY;SD-C123B-3
U4A1	A1292-0019	TUNER;TECC2889VA15A 106CH PAL/CCIR VS
U4A2	67189-0028-00	CONVERTER-RF;MDLK6D929A(B/G)
C4A1	61637-208-100	C-ELEC;CEAP 50V 10M SA(5X11)
C4A10	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C4A2	B1102-0125	C-FILM;CQ982P 50V T 104J-40/85 ECQV1H104JZ3
C4A3	B1102-0125	C-FILM;CQ982P 50V T 104J-40/85 ECQV1H104JZ3
C4A4	B1102-0125	C-FILM;CQ982P 50V T 104J-40/85 ECQV1H104JZ3
C4A5	61637-205-470	C-ELEC;CEAP 25V 47M SA(6X11)
C4A6	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C4A8	B1102-0125	C-FILM;CQ982P 50V T 104J-40/85 ECQV1H104JZ3
IC4A1	62119-401-370	IC;LA7920
IC4A2	62119-501-561	IC-L;KA33V TAPG
L4A1	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
Q4A1	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
R4A0	61079-917-335	R-CHIP;RH C2012 CS 335-J
R4A1	61079-917-103	R-CHIP;RH C2012 CS 103-J
R4A2	61079-917-432	R-CHIP;RH C2012 CS 432-J
R4A3	61079-917-223	R-CHIP;RH C2012 CS 223-J
R4A5	61079-917-103	R-CHIP;RH C2012 CS 103-J
R4A6	61079-917-103	R-CHIP;RH C2012 CS 103-J
R4A7	61079-917-103	R-CHIP;RH C2012 CS 103-J
R4A8	61079-917-103	R-CHIP;RH C2012 CS 103-J
R4A9	61079-917-822	R-CHIP;RH C2012 CS 822-J
R4B1	61079-917-335	R-CHIP;RH C2012 CS 335-J
R4B2	61079-917-335	R-CHIP;RH C2012 CS 335-J
R4B3	61079-917-223	R-CHIP;RH C2012 CS 223-J
R4B4	61079-917-223	R-CHIP;RH C2012 CS 223-J

LUMA/CHROMA PARTS

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
C3V02	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C3V03	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C3V04	61453-131-471	C-CERAMIC.CHIP;0805 5A 470JAT MA
C3V05	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C3V49	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
D3V01	62169-406-482	DIODE;1N4148 SAMSUNG
FL3V01	64569-006-011	DELAY LINE;MS-31PC-5K
L3V01	62427-020-150	COIL PEAKING.AXIAL;LAL02TB 150J TAPG
L3V02	62427-020-150	COIL PEAKING.AXIAL;LAL02TB 150J TAPG
Q3V01	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q3V02	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q3V03	62129-101-172	TRANSISTOR.CHIP;KSC 1623G(REEL)
R3V01	61079-917-271	R-CHIP;RH C2012 CS 271-J
R3V02	61079-917-000	R-CHIP;RH C2012 CS 000-J
R3V04	61079-917-102	R-CHIP;RH C2012 CS 102-J
R3V05	61079-917-102	R-CHIP;RH C2012 CS 102-J
R3V06	61079-917-102	R-CHIP;RH C2012 CS 102-J

I/O (MAIN) PARTS

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
RC01	61079-917-104	R-CHIP;RH C2012 CS 104-J
RC02	61079-917-104	R-CHIP;RH C2012 CS 104-J
RC03	61079-917-104	R-CHIP;RH C2012 CS 104-J

MESECAM DET. PARTS

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
C3S31	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C3S32	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C3S33	61637-204-330	C-ELEC;CEAP 16V 33M SA(5X11)
C3S34	61637-204-330	C-ELEC;CEAP 16V 33M SA(5X11)
C3S35	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)
FL3S07	64527-310-010	FILTER CERAMIC;SFE4.5MB TAPG
FL3S08	A1134-0015	COIL-TRAP.7.8KHZ 23.5MH 0.018UF
IC3S02	A4008-0035	IC;BA7025L SIP
R3N22	61079-917-222	R-CHIP;RH C2012 CS 222-J
R3S31	61079-917-223	R-CHIP;RH C2012 CS 223-J
R3S32	61079-917-103	R-CHIP;RH C2012 CS 103-J
R3S33	61079-917-102	R-CHIP;RH C2012 CS 102-J
R3S34	61079-917-102	R-CHIP;RH C2012 CS 102-J
R3S35	61079-917-823	R-CHIP;RH C2012 CS 823-J
R3S36	61079-917-222	R-CHIP;RH C2012 CS 222-J
R3S37	61079-917-154	R-CHIP;RH C2012 CS 154-J
R3S38	61079-917-103	R-CHIP;RH C2012 CS 103-J
R3S39	61079-917-471	R-CHIP;RH C2012 CS 471-J

LEVEL METER DRIVE

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
C6L01	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)
C6L02	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)
C6L03	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C6L04	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C6L05	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
CN6L01	63053-917-573	LEAD CONNECTOR ASSY;1533 #26 5395/5395-02
IC6L01	62119-106-010	IC;CD4053BC
IC6L02	B4012-0125	IC-LINEAR;BA6138 SIP
L6L01	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K
R6L01	61048-177-224	R-CARBON;RD 1/8 T 224-J
R6L02	61048-177-224	R-CARBON;RD 1/8 T 224-J

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601	69312-302-244	ASSY PREAMP;X-3PAL 6H'D HI-FI

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
C301	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C302	A1100-0010	C-CERAMIC.CHIP;2012B 102K
C303	A1100-0080	C-CERAMIC.CHIP;2012C 820J
C304	A1100-0080	C-CERAMIC.CHIP;2012C 820J
C305	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C306	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C307	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C308	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C309	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C310	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C311	61453-131-220	C-CERAMIC.CHIP;0805 5A 220JAT MA
C312	61453-131-220	C-CERAMIC.CHIP;0805 5A 220JAT MA
C313	A1100-0010	C-CERAMIC.CHIP;2012B 102K
C314	61637-808-010	C-ELEC;CEAP 50V 1M SE(4X5)
C315	61637-808-010	C-ELEC;CEAP 50V 1M SE(4X5)
C316	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C317	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C318	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C319	61453-130-474	C-CERAMIC.CHIP;0805 5C 473MAT 050M
C321	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C322	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C323	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C324	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C325	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C326	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C327	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C328	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C329	61453-131-221	C-CERAMIC.CHIP;0805 5A 221JAT MA
C330	61453-131-100	C-CERAMIC.CHIP;08055A100JAT050M
C331	A1100-0038	C-CERAMIC.CHIP;2012C 151J
C332	61453-131-270	C-CERAMIC.CHIP;0805 5A 270JAT MA
C333	61453-131-680	C-CERAMIC CHIP;0805 5A 680JAT MA
C336	A1100-0628	C-CERAMIC,CHIP;CC 73 CH 50V T 201-J C2012
C338	A1100-0080	C-CERAMIC.CHIP;2012C 820J
C339	61453-131-100	C-CERAMIC.CHIP;08055A100JAT050M
C340	61453-131-180	C-CERAMIC.CHIP;0805 5A 180JAT MA
C341	A1100-0053	C-CERAMIC.CHIP;2012C 390J
C342	61453-131-181	C-CERAMIC CHIP;0805 5A 181JAT MA
C344	61453-130-151	C-CERAMIC.CHIP;0805 5A 151JAT MA
C345	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C346	A1100-0044	C-CERAMIC.CHIP;2012B 223K
C347	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C348	61453-130-121	C-CERAMIC.CHIP;0805 5A 121JAT MA
C349	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C350	61453-131-100	C-CERAMIC.CHIP;08055A100JAT050M
C351	61453-131-270	C-CERAMIC.CHIP;0805 5A 270JAT MA
C353	61453-131-181	C-CERAMIC CHIP;0805 5A 181JAT MA
C354	61453-131-220	C-CERAMIC.CHIP;0805 5A 220JAT MA
C355	61627-208-010	C-ELEC;CEAP 50V 1M NP(6X11)
C358	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)

LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION
C359	61637-206-100	C-ELEC:CEAP 35V 10M SA(5X11)
C360	61637-608-338	C-ELEC:CEAP 50V 0.33M SV(5X9)
C361	A1100-0080	C-CERAMIC.CHIP:2012C 820J
C362	A1100-0009	C-CERAMIC.CHIP:2012C 101J
C363	61453-131-103	C-CERAMIC.CHIP:0805 5C 103KAT MA
C364	61453-131-103	C-CERAMIC.CHIP:0805 5C 103KAT MA
C365	61617-404-470	C-ELEC:CEAP 16V 47M RSS(6.3X7)
C366	61617-405-479	C-ELEC:CEAP 25V 4.7M RSS(4X7)
C367	61617-408-010	C-ELEC:CEAP 50V 1M RSS(4X7)
C368	61617-408-010	C-ELEC:CEAP 50V 1M RSS(4X7)
C369	61453-131-751	C-CERAMIC.CHIP:0805 5A 750JAT MA
C370	61617-408-019	C-ELEC:CEAP 50V 0.1M RSS(4X7)
C371	A1100-0044	C-CERAMIC.CHIP:2012B 223K
C372	61617-408-010	C-ELEC:CEAP 50V 1M RSS(4X7)
C373	61617-408-010	C-ELEC:CEAP 50V 1M RSS(4X7)
C374	61617-404-101	C-ELEC:CEAP 16V 100M RSS(6.3X7)
C376	61617-404-100	C-ELEC:CEAP 16V 10M RSS(4X7)
C379	61617-405-479	C-ELEC:CEAP 25V 4.7M RSS(4X7)
C398	61454-139-209	C-CERAMIC.CHIP:0805 5A 2R0CAT MA
C399	61453-130-121	C-CERAMIC.CHIP:0805 5A 121JAT MA
C8101	A1100-0017	C-CERAMIC.CHIP:2012F 104Z
C8102	A1100-0009	C-CERAMIC.CHIP:2012C 101J
C8103	61617-408-010	C-ELEC:CEAP 50V 1M RSS(4X7)
C8104	A1100-0010	C-CERAMIC.CHIP:2012B 102K
C8105	A1100-0010	C-CERAMIC.CHIP:2012B 102K
C8106	A1100-0009	C-CERAMIC.CHIP:2012C 101J
C8107	A1100-0009	C-CERAMIC.CHIP:2012C 101J
C8108	61617-408-010	C-ELEC:CEAP 50V 1M RSS(4X7)
C8109	61453-131-103	C-CERAMIC.CHIP:0805 5C 103KAT MA
C8110	61453-131-103	C-CERAMIC.CHIP:0805 5C 103KAT MA
C8111	61453-131-103	C-CERAMIC.CHIP:0805 5C 103KAT MA
C8112	61453-131-103	C-CERAMIC.CHIP:0805 5C 103KAT MA
C8113	A1100-0010	C-CERAMIC.CHIP:2012B 102K
C8114	61617-404-101	C-ELEC:CEAP 16V 100M RSS(6.3X7)
C8115	61617-404-101	C-ELEC:CEAP 16V 100M RSS(6.3X7)
CN301	63344-111-160	CONNECTOR FPC:52045-1010
CN302	A6010-0365	CONNECTOR-WAFER:GC200-15PLS WHT
CN303	A6010-0264	CONNECTOR WAFER:GC200-10P-LS WHT
CN304	A6010-0264	CONNECTOR WAFER:GC200-10P-LS WHT
D301	62169-406-482	DIODE:1N4148 SAMSUNG
D302	62169-406-482	DIODE:1N4148 SAMSUNG
D303	62169-406-482	DIODE:1N4148 SAMSUNG
D305	62169-406-482	DIODE:1N4148 SAMSUNG
D306	62169-406-482	DIODE:1N4148 SAMSUNG
IC301	B4012-0044	IC-LINER:BA7277S DIP
IC302	A4010-0009	IC-HYBRID:SVH-350DIP
IC303	B4008-0432	IC:MSM 7403RS SIP
IC801	B4012-0043	IC-LINER:BA7743S DIP
L301	62427-812-471	COIL-PEAKING:EL0606RA 470uH-J
L302	62427-020-221	COIL PEAKING.AXIAL:LAL02TB 221J TAPG
L303	62427-020-220	COIL PEAKING.AXIAL:LAL02TB 220J TAPG
L304	62427-020-560	COIL PEAKING.AXIAL:LAL02TB 560J TAPG
L305	62427-020-560	COIL PEAKING.AXIAL:LAL02TB 560J TAPG
L306	62427-812-331	COIL-PEAKING:EL0606RA 330uH-J
L307	62427-020-220	COIL PEAKING.AXIAL:LAL02TB 220J TAPG
L308	62427-020-330	COIL PEAKING.AXIAL:LAL02TB 330J TAPG
L309	62427-020-220	COIL PEAKING.AXIAL:LAL02TB 220J TAPG
L310	62427-020-101	COIL PEAKING.AXIAL:LAL02TB 101J TAPG
L311	62427-812-221	COIL-PEAKING:EL0606RA 220uH-J
L312	62427-020-820	COIL PEAKING.AXIAL:LAL02TB 820J TAPG
L313	62427-020-221	COIL PEAKING.AXIAL:LAL02TB 221J TAPG
L314	62427-020-560	COIL PEAKING.AXIAL:LAL02TB 560J TAPG
L315	62427-020-680	COIL PEAKING.AXIAL:LAL02TB 680J TAPG
L316	62429-833-101	COIL-PEAKING AXIAL:BAL04ST 101K
L317	62427-020-339	COIL PEAKING AXIAL:LAL02TB 3R3J TAPG
L399	62427-020-820	COIL PEAKING.AXIAL:LAL02TB 820J TAPG
L8101	62427-812-101	COIL-PEAKING:EL0606RA 100uH-J
L8102	62427-812-101	COIL-PEAKING:EL0606RA 100uH-J

LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION
Q301	62129-101-173	TRANSISTOR.CHIP:KSR 1104(REEL)
Q302	62129-101-172	TRANSISTOR.CHIP:KSC 1623G(REEL)
Q305	62129-101-172	TRANSISTOR.CHIP:KSC 1623G(REEL)
Q306	62129-101-172	TRANSISTOR.CHIP:KSC 1623G(REEL)
Q307	62129-101-080	TRANSISTOR.CHIP:KSA 812-G(REEL)
Q308	62129-101-173	TRANSISTOR.CHIP:KSR 1104(REEL)
Q309	62129-101-080	TRANSISTOR.CHIP:KSA 812-G(REEL)
Q310	62129-101-173	TRANSISTOR.CHIP:KSR 1104(REEL)
Q312	62129-101-173	TRANSISTOR.CHIP:KSR 1104(REEL)
Q313	62129-101-173	TRANSISTOR.CHIP:KSR 1104(REEL)
Q314	62129-101-173	TRANSISTOR.CHIP:KSR 1104(REEL)
Q315	62129-101-173	TRANSISTOR.CHIP:KSR 1104(REEL)
Q318	62129-101-172	TRANSISTOR.CHIP:KSC 1623G(REEL)
Q319	62129-101-173	TRANSISTOR.CHIP:KSR 1104(REEL)
Q320	62129-101-130	TRANSISTOR.CHIP:KSR 2102 (REEL)
Q322	62129-101-172	TRANSISTOR.CHIP:KSC 1623G(REEL)
Q323	62129-101-080	TRANSISTOR.CHIP:KSA 812-G(REEL)
Q330	62129-101-173	TRANSISTOR.CHIP:KSR 1104(REEL)
Q331	62129-101-130	TRANSISTOR.CHIP:KSR 2102 (REEL)
Q8101	62129-101-172	TRANSISTOR.CHIP:KSC 1623G(REEL)
R301	61079-917-102	R-CHIP:RH C2012 CS 102-J
R302	61079-917-471	R-CHIP:RH C2012 CS 471-J
R303	61079-917-471	R-CHIP:RH C2012 CS 471-J
R304	61079-917-121	R-CHIP:RH C2012 CS 121-J
R305	61079-917-121	R-CHIP:RH C2012 CS 121-J
R306	61079-917-102	R-CHIP:RH C2012 CS 102-J
R307	61079-917-511	R-CHIP:RH C2012 CS 511-J
R308	61079-917-331	R-CHIP:RH C2012 CS 331-J
R309	61079-917-101	R-CHIP:RH C2012 CS 101-J
R310	61079-917-181	R-CHIP:RH C2012 CS 181-J
R312	61079-917-152	R-CHIP:RH C2012 CS 152-J
R313	61079-917-102	R-CHIP:RH C2012 CS 102-J
R314	61079-917-273	R-CHIP:RH C2012 CS 273-J
R315	61079-917-123	R-CHIP:RH C2012 CS 123-J
R316	61079-917-181	R-CHIP:RH C2012 CS 181-J
R317	61079-917-102	R-CHIP:RH C2012 CS 102-J
R318	61079-917-102	R-CHIP:RH C2012 CS 102-J
R319	61079-917-222	R-CHIP:RH C2012 CS 222-J
R320	61079-917-471	R-CHIP:RH C2012 CS 471-J
R321	61079-917-471	R-CHIP:RH C2012 CS 471-J
R322	61079-917-182	R-CHIP:RH C2012 CS 182-J
R323	61079-917-000	R-CHIP:RH C2012 CS 000-J
R324	61079-917-471	R-CHIP:RH C2012 CS 471-J
R325	61079-917-751	R-CHIP:RH C2012 CS 751-J
R326	61079-917-471	R-CHIP:RH C2012 CS 471-J
R327	61079-917-102	R-CHIP:RH C2012 CS 102-J
R328	61079-917-102	R-CHIP:RH C2012 CS 102-J
R329	61079-917-271	R-CHIP:RH C2012 CS 271-J
R330	61079-917-102	R-CHIP:RH C2012 CS 102-J
R331	61079-917-510	R-CHIP:RH C2012 CS 510-J
R332	61079-917-271	R-CHIP:RH C2012 CS 271-J
R333	61079-917-122	R-CHIP:RH C2012 CS 122-J
R334	61079-917-333	R-CHIP:RH C2012 CS 333-J
R335	61079-917-333	R-CHIP:RH C2012 CS 333-J
R336	61079-917-152	R-CHIP:RH C2012 CS 152-J
R337	61079-917-152	R-CHIP:RH C2012 CS 152-J
R338	61079-917-122	R-CHIP:RH C2012 CS 122-J
R339	61079-917-680	R-CHIP:RH C2012 CS 680-J
R340	61079-917-332	R-CHIP:RH C2012 CS 332-J
R341	61079-917-392	R-CHIP:RH C2012 CS 392-J
R342	61079-917-472	R-CHIP:RH C2012 CS 472-J
R343	61079-917-682	R-CHIP:RH C2012 CS 682-J
R344	61079-917-122	R-CHIP:RH C2012 CS 122-J
R345	61079-917-222	R-CHIP:RH C2012 CS 222-J
R346	61079-917-102	R-CHIP:RH C2012 CS 102-J
R347	61079-917-102	R-CHIP:RH C2012 CS 102-J
R348	61079-917-271	R-CHIP:RH C2012 CS 271-J
R349	61048-177-182	R-CARBON:RD 1/8 T 182-J

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
R350	61048-177-333	R-CARBON;RD 1/8 T 333-J
R352	61079-917-103	R-CHIP;RH C2012 CS 103-J
R353	61079-917-822	R-CHIP;RH C2012 CS 822-J
R354	61079-917-153	R-CHIP;RH C2012 CS 153-J
R356	61079-917-471	R-CHIP;RH C2012 CS 471-J
R396	61048-177-102	R-CARBON;RD 1/8 T 102-J
R399	61079-917-183	R-CHIP;RH C2012 CS 183-J
R8101	61079-917-224	R-CHIP;RH C2012 CS 224-J
R8102	61079-917-102	R-CHIP;RH C2012 CS 102-J
R8103	61079-917-152	R-CHIP;RH C2012 CS 152-J
R8104	61079-917-100	R-CHIP;RH C2012 CS 100-J
R8106	61079-917-561	R-CHIP;RH C2012 CS 561-J
R8107	61079-917-561	R-CHIP;RH C2012 CS 561-J
R8108	61079-917-152	R-CHIP;RH C2012 CS 152-J
R8109	61079-917-473	R-CHIP;RH C2012 CS 473-J
R8110	61079-917-103	R-CHIP;RH C2012 CS 103-J
R8111	61079-917-182	R-CHIP;RH C2012 CS 182-J
R8112	61079-917-102	R-CHIP;RH C2012 CS 102-J
R8113	61079-917-221	R-CHIP;RH C2012 CS 221-J
R8114	61079-917-822	R-CHIP;RH C2012 CS 822-J
R8116	61079-917-821	R-CHIP;RH C2012 CS 821-J
R8117	61079-917-102	R-CHIP;RH C2012 CS 102-J
XT301	64539-012-079	X-TAL;4.43 3619MHZ 8PPM TAPG

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602 69353-302-201 ASSY OSP;X-3 W-PAL

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
C901	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C902	A1100-0044	C-CERAMIC.CHP;2012B 223K
C903	61453-131-270	C-CERAMIC.CHP;0805 5A 270JAT MA
C904	61453-131-220	C-CERAMIC.CHP;0805 5A 220JAT MA
C905	61453-130-034	C-CERAMIC.CHP;0805 5C 103JAT MA
C906	61453-130-034	C-CERAMIC.CHP;0805 5C 103JAT MA
C907	61617-408-229	C-ELEC;CEAP 50V 2.2M RSS(4X7)
C908	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C909	61507-121-341	C-POLYESTER;CQ921M TAPG 50V 102-J
C910	61507-121-420	C-POLYESTER;CQ921M TAPG 100V 392-K
C911	61453-130-121	C-CERAMIC.CHP;0805 5A 121JAT MA
C912	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C913	61453-131-471	C-CERAMIC.CHP;0805 5A 470JAT MA
C914	A1100-0004	C-CERAMIC.CHP;2012C 560J
C915	61453-131-821	C-CERAMIC CHIP;0805 5A 820JAT MA
C916	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C917	61617-408-478	C-ELEC;CEAP 50V 0.47M RSS(4X7)
C918	A1102-0148	C-FILM;CF 922 P 100V T 104-J /C-M 365 26104/3E
C919	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C920	61453-130-034	C-CERAMIC.CHP;0805 5C 103JAT MA
C921	61627-204-479	C-ELEC;CEAP 16V 4.7M NP(4X7)
C922	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C923	61453-130-034	C-CERAMIC.CHP;0805 5C 103JAT MA
C924	61453-130-034	C-CERAMIC.CHP;0805 5C 103JAT MA
C927	A1100-0044	C-CERAMIC.CHP;2012B 223K
C928	A1100-0044	C-CERAMIC.CHP;2012B 223K
C929	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
CN901	A6010-0363	CONNECTOR-WAFER;GC200-12P LS WHT
D901	62169-406-482	DIODE;1N4148 SAMSUNG
D902	62169-406-482	DIODE;1N4148 SAMSUNG
D903	62169-406-482	DIODE;1N4148 SAMSUNG
D904	62169-406-482	DIODE;1N4148 SAMSUNG
D905	62169-406-482	DIODE;1N4148 SAMSUNG
D906	62169-406-482	DIODE;1N4148 SAMSUNG
D907	62169-406-482	DIODE;1N4148 SAMSUNG
IC901	A4008-1044	IC;KS5513C-06 DIP
L901	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG-
L902	62427-020-150	COIL PEAKING.AXIAL;LAL02TB 150J TAPG
L903	62427-020-120	COIL PEAKING.AXIAL;LAL02TB 120J TAPG
L904	62427-812-100	COIL-PEAKING;EL0606RA 10uH-J
L905	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K
L906	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
Q901	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q902	62137-103-380	TRANSISTOR;KSA 733-Y TAPG
Q903	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q904	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q905	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
R901	61079-917-122	R-CHIP;RH C2012 CS 122-J
R902	61079-917-821	R-CHIP;RH C2012 CS 821-J
R903	61079-917-681	R-CHIP;RH C2012 CS 681-J
R904	61079-917-682	R-CHIP;RH C2012 CS 682-J
R905	61079-917-123	R-CHIP;RH C2012 CS 123-J
R906	61079-917-153	R-CHIP;RH C2012 CS 153-J
R907	61079-917-123	R-CHIP;RH C2012 CS 123-J
R909	61079-917-681	R-CHIP;RH C2012 CS 681-J
R910	61079-917-273	R-CHIP;RH C2012 CS 273-J
R911	61079-917-822	R-CHIP;RH C2012 CS 822-J
R912	61079-917-105	R-CHIP;RH C2012 CS 105-J
R913	61079-917-222	R-CHIP;RH C2012 CS 222-J
R914	61079-917-103	R-CHIP;RH C2012 CS 103-J
R915	61079-917-224	R-CHIP;RH C2012 CS 224-J
R916	61079-917-101	R-CHIP;RH C2012 CS 101-J
R917	61079-917-183	R-CHIP;RH C2012 CS 183-J
R918	61079-917-103	R-CHIP;RH C2012 CS 103-J
R919	61079-917-102	R-CHIP;RH C2012 CS 102-J
R921	61079-917-203	R-CHIP;RH C2012 CS 203-J
R922	61079-917-393	R-CHIP;RH C2012 CS 393-J
R923	61079-917-102	R-CHIP;RH C2012 CS 102-J
R924	61079-917-102	R-CHIP;RH C2012 CS 102-J
R925	61079-917-563	R-CHIP;RH C2012 CS 563-J
R926	61079-917-104	R-CHIP;RH C2012 CS 104-J
R927	61079-917-102	R-CHIP;RH C2012 CS 102-J
R933	61079-917-222	R-CHIP;RH C2012 CS 222-J
R936	61079-917-103	R-CHIP;RH C2012 CS 103-J
R937	61079-917-473	R-CHIP;RH C2012 CS 473-J
R947	61079-917-680	R-CHIP;RH C2012 CS 680-J
R948	61079-917-105	R-CHIP;RH C2012 CS 105-J
R951	61079-917-104	R-CHIP;RH C2012 CS 104-J
R953	61079-917-332	R-CHIP;RH C2012 CS 332-J
XT901	64539-012-543	CRYSTAL;17.734475M(20ppm)

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603 69326-302-207 ASSY I/O;X-3 PAL HI-FI TTX

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
C4301	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C4302	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C4303	61407-105-320	C-CERAMIC.TEMP;CC45 CH TAPG 50V 82-J
C4304	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C4305	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 203ZT
C4306	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C4307	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C4308	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C4309	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 203ZT
C4310	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C4311	61407-101-170	C-CERAMIC.TEMP;CC45 SL TAPG 50V 150-J
C4312	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102-K
C4313	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102-K
C4314	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102-K
C4315	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102-K
C4316	61407-105-320	C-CERAMIC.TEMP;CC45 CH TAPG 50V 82-J
C4317	61407-105-320	C-CERAMIC.TEMP;CC45 CH TAPG 50V 82-J
C4318	61407-105-320	C-CERAMIC.TEMP;CC45 CH TAPG 50V 82-J
C4319	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102-K
C4320	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102-K
C4321	61637-502-471	C-ELEC;CEAP 6.3V 470M SG(8X11.5)
C4322	61637-602-471	C-ELEC;CEAP 6.3V 470M SV(10X9)
C4323	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
C4324	61407-105-320	C-CERAMIC.TEMP;CC45 CH TAPG 50V 82-J
C4326	61407-117-223	C-CERAMIC.AXIAL;CAX B TAPG 50V 220-K
C4327	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C4328	61407-101-460	C-CERAMIC.TEMP;CC45 SL TAPG 50V 270-J
C4329	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C4330	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C4331	61407-101-360	C-CERAMIC.TEMP;CC45 SL TAPG 50V 100-J
CN4301	A6010-0365	CONNECTOR-WAFER;GC200-15PLS WHT
CN4302	A6010-0365	CONNECTOR-WAFER;GC200-15PLS WHT
CN4303	63349-062-540	CONNECTOR-WAFER;5268-05A
D4301	62169-406-482	DIODE;1N4148 SAMSUNG
IC4301	62119-101-954	IC;TA7347P
IC4302	62119-401-310	IC;KA8403
JC4301	A3040-0054	JACK-SCART;DSR-9102(S) BLK 21P
JC4302	A3040-0004	JACKPIN;DSP-8805-03(YEL)
JC4303	A3040-0003	JACKPIN;DSP-8805-03(WHT)
JC4304	A3040-0002	JACKPIN;DSP-8805-03(RED)
L4301	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
L4302	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
L4303	62427-812-330	COIL-PEAKING;EL0606RA 33uH-J
L4304	62427-812-330	COIL-PEAKING;EL0606RA 33uH-J
L4305	62427-812-330	COIL-PEAKING;EL0606RA 33uH-J
L4306	62427-812-330	COIL-PEAKING;EL0606RA 33uH-J
L4307	62427-812-330	COIL-PEAKING;EL0606RA 33uH-J
L4308	62427-812-330	COIL-PEAKING;EL0606RA 33uH-J
L4309	62427-020-180	COIL PEAKING.AXIAL;LAL02TB 180J TAPG
Q4301	62137-103-380	TRANSISTOR;KSA 733-Y TAPG
Q4302	62137-103-380	TRANSISTOR;KSA 733-Y TAPG
Q4303	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q4304	62137-103-380	TRANSISTOR;KSA 733-Y TAPG
Q4305	62137-701-013	TRANSISTOR;KSR 1004 TAPG
Q4306	62137-701-020	TRANSISTOR;KSR 2001 TAPG
Q4307	62137-103-380	TRANSISTOR;KSA 733-Y TAPG
R4301	61048-177-751	R-CARBON;RD 1/8 T 751-J
R4302	61048-177-751	R-CARBON;RD 1/8 T 751-J
R4303	61048-177-122	R-CARBON;RD 1/8 T 122-J
R4304	61048-177-224	R-CARBON;RD 1/8 T 224-J
R4305	61048-177-122	R-CARBON;RD 1/8 T 122-J
R4306	61048-177-224	R-CARBON;RD 1/8 T 224-J
R4307	61048-177-750	R-CARBON;RD 1/8 T 750-J
R4308	61048-177-751	R-CARBON;RD 1/8 T 751-J
R4309	61048-177-473	R-CARBON;RD 1/8 T 473-J
R4310	61048-177-473	R-CARBON;RD 1/8 T 473-J
R4311	61048-177-751	R-CARBON;RD 1/8 T 751-J
R4312	61048-177-750	R-CARBON;RD 1/8 T 750-J
R4313	61048-177-750	R-CARBON;RD 1/8 T 750-J
R4314	61048-177-820	R-CARBON;RD 1/8 T 820-J
R4315	61048-177-820	R-CARBON;RD 1/8 T 820-J
R4316	61048-177-102	R-CARBON;RD 1/8 T 102-J
R4317	61048-177-102	R-CARBON;RD 1/8 T 102-J
R4318	61048-177-102	R-CARBON;RD 1/8 T 102-J
R4319	61048-177-102	R-CARBON;RD 1/8 T 102-J
R4320	61048-177-471	R-CARBON;RD 1/8 T 471-J
R4321	61048-177-471	R-CARBON;RD 1/8 T 471-J
R4322	61048-177-471	R-CARBON;RD 1/8 T 471-J
R4323	61048-177-471	R-CARBON;RD 1/8 T 471-J
R4324	61048-177-911	R-CARBON;RD 1/8 T 911-J
R4325	61048-277-821	R-CARBON;RD 1/4 T 821-J
R4326	61048-177-203	R-CARBON;RD 1/8 T 203-J
R4328	61048-177-681	R-CARBON;RD 1/8 T 681-J
R4329	61048-177-820	R-CARBON;RD 1/8 T 820-J
R4334	61048-177-121	R-CARBON;RD 1/8 T 121-J
R4335	61048-177-271	R-CARBON;RD 1/8 T 271-J
W4331	61048-177-221	R-CARBON;RD 1/8 T 221-J
ZD4301	62169-403-824	DIODE-ZENER;MTZ 9.1B

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
604	69322-302-236	ASSY VIF PACK;X-3PAL HI-FI B/G A2
C402	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C404	61453-131-270	C-CERAMIC.CHP;0805 5A 270JAT MA
C405	61454-139-479	C-CERAMIC.CHP;08055A 4R7 JAT MA
C406	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C407	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C408	61453-131-220	C-CERAMIC.CHP;0805 5A 220JAT MA
C409	A1100-0017	C-CERAMIC.CHP;2012F 104Z
C410	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C412	A1100-0017	C-CERAMIC.CHP;2012F 104Z
C413	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C415	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C416	A1100-0017	C-CERAMIC.CHP;2012F 104Z
C417	61453-131-890	C-CERAMIC.CHP;08055A8R2DAT050M
C418	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C420	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C423	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 0.01-N
C425	61627-204-479	C-ELEC;CEAP 16V 4.7M NP(4X7)
C426	61627-204-479	C-ELEC;CEAP 16V 4.7M NP(4X7)
C427	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C428	B1102-0112	C-FILM;CQ298PVT 224J/ECQV1H224JZ3
C431	61453-131-103	C-CERAMIC.CHP;0805 5C 103KAT MA
C432	A1100-0017	C-CERAMIC.CHP;2012F 104Z
C434	A1100-0017	C-CERAMIC.CHP;2012F 104Z
C437	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C438	61617-408-229	C-ELEC;CEAP 50V 2.2M RSS(4X7)
C439	61617-408-229	C-ELEC;CEAP 50V 2.2M RSS(4X7)
C440	B1102-0125	C-FILM;CQ982P 50V T 104J-40/85 ECQV1H104JZ3
C441	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C442	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C448	61617-408-229	C-ELEC;CEAP 50V 2.2M RSS(4X7)
C449	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C452	61617-408-229	C-ELEC;CEAP 50V 2.2M RSS(4X7)
C472	61454-139-479	C-CERAMIC.CHP;08055A 4R7 JAT MA
C473	61453-131-270	C-CERAMIC.CHP;0805 5A 270JAT MA
CN401	A6010-0414	CONNECTOR-WAFER;GC250-11P
CN402	A6010-0414	CONNECTOR-WAFER;GC250-11P
CN403	A6010-0413	CONNECTOR-WAFER;GC250-7P
CN404	63349-603-070	CONNECTOR-WAFER;53015-0710
D408	62169-406-482	DIODE;1N4148 SAMSUNG
D416	62169-901-047	DIODE CHIP;MA111-(TX) TYPE
D417	62169-901-047	DIODE CHIP;MA111-(TX) TYPE
FL401	62429-832-021	COIL-TRAP;DAISIN 40.4MHZ(G-10)
FL402	62429-832-009	COIL-TRAP;DAISIN 32.4MHZ(G-10)
FL403	B1245-0007	FILTER-SAW;SAF 38.9MZW80Z PAL BG
FL404	64529-425-042	FILTER-CERAMIC;SFT 5.74MA
FL405	64527-101-001	FILTER CERAMIC TRAP;TPS 5.5MB TAPG
FL406	64527-101-002	FILTER CERAMIC TRAP;TPS 6.0MB TAPG
FL407	64527-103-001	FILTER CERAMIC;SFE 5.5MB TAPG
FL408	64527-103-001	FILTER CERAMIC;SFE 5.5MB TAPG
FL411	64529-418-044	FILTER SAW;SAF33.4MD 70Z
IC401	B4012-0046	IC-LINER;TDA 9800 DIP
IC402	B4012-0046	IC-LINER;TDA 9800 DIP
IC403	B4012-0145	IC-LINEAR;TDA8415 DIP
L401	62427-812-270	COIL-PEAKING;EL0606RA 27uH-J
L402	62427-812-109	COIL-PEAKING;EL0606RA 1uH-K
L403	62427-812-139	COIL-PEAKING;EL0606RA 1.3uH-K
L404	62427-020-229	COIL PEAKING.AXIAL;LAL02TB 2R2J TAPG
L407	62427-812-100	COIL-PEAKING;EL0606RA 10uH-J
L410	62427-812-139	COIL-PEAKING;EL0606RA 1.3uH-K
L413	62427-020-011	COIL PEAKING.AXIAL;LAL02TB 100J TAPG
L414	62427-020-101	COIL PEAKING.AXIAL;LAL02TB 101J TAPG
Q401	62129-101-110	TRANSISTOR.CHP;KSR 1102 (REEL)
Q402	62129-101-173	TRANSISTOR.CHP;KSR 1104(REEL)
Q403	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q406	62137-702-010	TRANSISTOR;KTC 3197-AT(TAPG)
Q407	62137-701-012	TRANSISTOR;KSR 1003 TAPG

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
Q408	62147-401-835	TRANSISTOR;KSA 928A-Y TAPG
Q411	62137-702-010	TRANSISTOR;KTC 3197-AT(TAPG)
Q413	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
R403	61079-917-562	R-CHIP;RH C2012 CS 562-J
R404	61079-917-271	R-CHIP;RH C2012 CS 271-J
R405	61079-917-152	R-CHIP;RH C2012 CS 152-J
R409	61079-917-391	R-CHIP;RH C2012 CS 391-J
R412	61079-917-272	R-CHIP;RH C2012 CS 272-J
R414	61079-917-104	R-CHIP;RH C2012 CS 104-J
R415	61079-917-103	R-CHIP;RH C2012 CS 103-J
R416	61079-917-331	R-CHIP;RH C2012 CS 331-J
R418	61079-917-223	R-CHIP;RH C2012 CS 223-J
R421	61079-917-823	R-CHIP;RH C2012 CS 823-J
R422	61079-917-151	R-CHIP;RH C2012 CS 151-J
R423	61079-917-153	R-CHIP;RH C2012 CS 153-J
R424	61079-917-561	R-CHIP;RH C2012 CS 561-J
R425	61079-917-331	R-CHIP;RH C2012 CS 331-J
R426	61079-917-101	R-CHIP;RH C2012 CS 101-J
R431	61079-917-562	R-CHIP;RH C2012 CS 562-J
R432	61079-917-271	R-CHIP;RH C2012 CS 271-J
R435	61079-917-152	R-CHIP;RH C2012 CS 152-J
R436	61079-917-470	R-CHIP;RH C2012 CS 470-J
R437	61079-917-391	R-CHIP;RH C2012 CS 391-J
R444	61079-917-333	R-CHIP;RH C2012 CS 333-J
R445	61079-917-223	R-CHIP;RH C2012 CS 223-J
R447	61079-917-103	R-CHIP;RH C2012 CS 103-J
R448	61079-917-391	R-CHIP;RH C2012 CS 391-J
R450	61079-917-820	R-CHIP;RH C2012 CS 820-J
R451	61079-917-000	R-CHIP;RH C2012 CS 000-J
R452	61079-917-223	R-CHIP;RH C2012 CS 223-J
R453	61079-917-101	R-CHIP;RH C2012 CS 101-J
R454	61079-917-101	R-CHIP;RH C2012 CS 101-J
R455	61079-917-622	R-CHIP;RH C2012 CS 622-J
R457	61079-917-432	R-CHIP;RH C2012 CS 432-J
R459	61048-177-471	R-CARBON;RD 1/8 T 471-J
R460	61048-177-102	R-CARBON;RD 1/8 T 102-J
R461	61048-177-102	R-CARBON;RD 1/8 T 102-J
R462	61048-277-821	R-CARBON;RD 1/4 T 821-J
R463	61048-177-102	R-CARBON;RD 1/8 T 102-J
R464	61048-177-223	R-CARBON;RD 1/8 T 223-J
R465	61048-177-331	R-CARBON;RD 1/8 T 331-J
R487	61079-917-390	R-CHIP;RH C2012 CS 390-J
R488	61048-177-822	R-CARBON;RD 1/8 T 822-J
R489	61079-917-103	R-CHIP;RH C2012 CS 103-J
R490	61048-177-181	R-CARBON;RD 1/8 T 181-J
R491	61048-177-682	R-CARBON;RD 1/8 T 682-J
R495	61079-917-220	R-CHIP;RH C2012 CS 220-J
R496	61079-917-101	R-CHIP;RH C2012 CS 101-J
R497	61079-917-752	R-CHIP;RH C2012 CS 752-J
R498	61079-917-752	R-CHIP;RH C2012 CS 752-J
TL401	A1197-0001	TRANS-DET A;M7T1/33301
TL403	A1197-0001	TRANS-DET A;M7T1/33301
VR401	B1054-0199	VR-SEMI;EVN-DCAA03-B1 47KB CARBON TAPG
XT01	64539-012-112	CRYSTAL;XT10 MHZ

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
605	69324-302-205	ASSY HI-FI;X-3 PAL HI-FI TTX
C807	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C808	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C810	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C811	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C813	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C814	61637-504-331	C-ELEC;CEAP 16V 330M SMS(8X11)
C815	61637-804-220	C-ELEC;CEAP 16V 22M SE(5X5)
C816	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C817	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C818	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C819	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C820	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C821	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C822	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C823	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C824	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
C825	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C826	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C827	61507-121-610	C-POLYESTER;CQ921M TAPG 100V 123-J
C828	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C829	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C830	61453-131-271	C-CERAMIC.CHIP;0805 5A 271JAT MA
C831	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C832	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C833	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C834	61637-504-331	C-ELEC;CEAP 16V 330M SMS(8X11)
C835	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C836	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C837	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C838	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C839	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 0.01-N
C840	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C841	61507-121-610	C-POLYESTER;CQ921M TAPG 100V 123-J
C842	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C843	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C844	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
C845	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C846	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C847	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C848	61637-804-220	C-ELEC;CEAP 16V 22M SE(5X5)
C849	61454-136-120	C-CERAMIC.CHIP;0805 5A 120JAT 050M
C850	61453-129-223	C-CERAMIC.CHIP;0805 5E 223ZAT MA
C851	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C853	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C854	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C860	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C870	61407-117-228	C-CERAMIC.AXIAL;CK OAF 25V 223Z/F 25V 203ZT
CN801	A6010-0365	CONNECTOR-WAFER;GC200-15PLS WHT
CN802	A6010-0362	CONNECTOR-WAFER;GC200-9P LS WHT
CN803	A6010-0362	CONNECTOR-WAFER;GC200-9P LS WHT
CN804	63349-601-041	CONNECTOR WAFER;5234-05A
FL801	A1240-0059	FILTER-LC;BP 1.4M/1.8M SFB-4174
IC802	B4012-0042	IC-LINER;TA8813N DIP
IC803	A4008-0112	IC;KIA 7809P SIP
L802	62427-020-101	COIL PEAKING.AXIAL;LAL02TB 101J TAPG
L804	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
Q801	A4050-0001	TRANSISTOR;2SD 1468SQ
Q802	A4050-0001	TRANSISTOR;2SD 1468SQ
Q803	62129-101-080	TRANSISTOR.CHIP;KSA 812-G(REEL)
Q804	62129-301-104	TRANSISTOR.CHIP;KSR 1103(REEL)
R807	61079-917-102	R-CHIP;RH C2012 CS 102-J
R808	61079-217-182	R-CHIP;RH C3216 CS 182-J
R809	61079-217-222	R-CHIP;RH C3216 CS 222-J
R810	61079-217-183	R-CHIP;RH C3216 CS 183-J
R811	61079-217-222	R-CHIP;RH C3216 CS 222-J
R812	61079-917-000	R-CHIP;RH C2012 CS 000-J

LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION
R814	61079-917-183	R-CHIP:RH C2012 CS 183-J
R815	61079-917-101	R-CHIP:RH C2012 CS 101-J
R816	61079-917-103	R-CHIP:RH C2012 CS 103-J
R817	61079-917-101	R-CHIP:RH C2012 CS 101-J
R818	61079-917-103	R-CHIP:RH C2012 CS 103-J
R819	61048-177-273	R-CARBON:RD 1/8 T 273-J
R819	61079-917-333	R-CHIP:RH C2012 CS 333-J
R820	61079-917-124	R-CHIP:RH C2012 CS 124-J
R821	61079-917-912	R-CHIP:RH C2012 CS 912-J
R823	61079-217-102	R-CHIP:RH C3216 CS 102-J
R824	61079-917-473	R-CHIP:RH C2012 CS 473-J
R825	61079-917-304	R-CHIP:RH C2012 CS 304-J
R826	61079-917-202	R-CHIP:RH C2012 CS 202-J
R827	61079-917-183	R-CHIP:RH C2012 CS 183-J
R828	61079-917-202	R-CHIP:RH C2012 CS 202-J
R829	61079-917-223	R-CHIP:RH C2012 CS 223-J
R830	61079-917-152	R-CHIP:RH C2012 CS 152-J
R831	61079-917-152	R-CHIP:RH C2012 CS 152-J
R832	61079-917-682	R-CHIP:RH C2012 CS 682-J
R833	61079-917-332	R-CHIP:RH C2012 CS 332-J
R834	61079-917-152	R-CHIP:RH C2012 CS 152-J
R835	61079-917-474	R-CHIP:RH C2012 CS 474-J
R836	61079-917-152	R-CHIP:RH C2012 CS 152-J
R837	61079-917-183	R-CHIP:RH C2012 CS 183-J
R838	61079-917-202	R-CHIP:RH C2012 CS 202-J
R839	61079-917-304	R-CHIP:RH C2012 CS 304-J
R840	61079-917-202	R-CHIP:RH C2012 CS 202-J
R841	61079-917-822	R-CHIP:RH C2012 CS 822-J
R845	61079-917-203	R-CHIP:RH C2012 CS 203-J
R847	61079-917-624	R-CHIP:RH C2012 CS 624-J
R848	61079-917-000	R-CHIP:RH C2012 CS 000-J
R849	61079-217-000	R-CHIP:RH C3216 CS 000-J
R850	61079-917-000	R-CHIP:RH C2012 CS 000-J
R851	61079-217-821	R-CHIP:RH C3216 CS 821-J
R854	61048-177-183	R-CARBON:RD 1/8 T 183-J
R855	61048-177-183	R-CARBON:RD 1/8 T 183-J
R856	61079-917-682	R-CHIP:RH C2012 CS 682-J
R857	61079-917-682	R-CHIP:RH C2012 CS 682-J
R858	61079-917-682	R-CHIP:RH C2012 CS 682-J
R859	61079-217-000	R-CHIP:RH C3216 CS 000-J
R861	61079-917-682	R-CHIP:RH C2012 CS 682-J
VR801	61247-101-223	VR-SEMI:EVN-DJA A03BE4 TAPG 22KB
VR802	61247-101-223	VR-SEMI:EVN-DJA A03BE4 TAPG 22KB

LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION
607	69054-603-222	ASSY TOP:X-3 PAL/MESECAM VX-380/SEG
	69311-302-203	ASSY TOP:X-3 PAL/MESECAM VX-380/QUE
C01	61617-208-010	C-ELEC:CEAP 50V 1M RSS
C02	61453-131-220	C-CERAMIC.CHP:0805 5A 220JAT MA
C03	61453-131-220	C-CERAMIC.CHP:0805 5A 220JAT MA
C04	61453-130-471	C-CERAMIC.CHP:0805 5A 471KAT MA
C05	A1100-0010	C-CERAMIC.CHP:2012B 102K
C06	61453-131-472	C-CERAMIC.CHP:0805 5C 472KAT MA
C07	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C08	61453-131-472	C-CERAMIC.CHP:0805 5C 472KAT MA
C09	A1100-0044	C-CERAMIC.CHP:2012B 223K
C10	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C11	A1100-0010	C-CERAMIC.CHP:2012B 102K
C12	61453-131-100	C-CERAMIC.CHP:08055A100JAT050M
C13	61454-139-150	C-CERAMIC.CHP:0805 5A 150JAT MA
C14	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C15	61637-805-100	C-ELEC:CEAP 25V 10M SE(5X5)
C16	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C17	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C18	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C19	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C20	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C23	61637-805-100	C-ELEC:CEAP 25V 10M SE(5X5)
C24	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C25	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C26	61637-805-100	C-ELEC:CEAP 25V 10M SE(5X5)
C27	A1100-0009	C-CERAMIC.CHP:2012C 101J
C28	61617-404-101	C-ELEC:CEAP 16V 100M RSS(6.3X7)
C29	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C30	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C31	61617-408-010	C-ELEC:CEAP 50V 1M RSS(4X7)
C32	61453-130-333	C-CERAMIC.CHP:0805 5C 333MAT MA
C34	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C35	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C36	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C37	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C38	A1102-0148	C-FILM:CF 922 P 100V T 104-J /C-M 365 26104/3E
C39	61617-404-101	C-ELEC:CEAP 16V 100M RSS(6.3X7)
C40	B1104-0294	C-ELEC:CE 03 E 5.5V T 104F Z SUPER/EECS5R5T104
C44	61453-131-270	C-CERAMIC.CHP:0805 5A 270JAT MA
C46	A1100-0017	C-CERAMIC.CHP:2012F 104Z
C47	61453-130-151	C-CERAMIC.CHP:0805 5A 151JAT MA
CN01	63053-405-640	LEAD CONNECTOR ASSY:1061 #26 5264/5395-05 40
CN02	63053-207-130	LEAD CONNECTOR ASSY:1429 #26 5295-51004 7P 3
D01	B4104-0046	DIODE-RECT:1N4002GP 200V 1A
D02	B4104-0046	DIODE-RECT:1N4002GP 200V 1A
FL01	64529-402-034	FILTER:SDL1092
FL02	64529-421-223	EMI-SPR FILTER:DSS306-93F 223Z 16
FL03	64529-420-101	EMI-SPR FILTER:DSS306-93Y5S 101M 100
FL04	64529-421-223	EMI-SPR FILTER:DSS306-93F 223Z 16
FL05	64529-420-101	EMI-SPR FILTER:DSS306-93Y5S 101M 100
FL06	64529-420-101	EMI-SPR FILTER:DSS306-93Y5S 101M 100
IC01	B4002-0090	IC-MCU:P80C652-FFB(TRAY) VTR QFP
IC02	B4012-0077	IC-LINEAR:SAA4700T SOP REEL
IC03	B4002-0143	IC-MCU:SAA5246AGP/E(M6) QFP
IC04	62119-101-436	IC:PC74HC373T(REEL)
IC05	62119-701-133	IC-FP:KM6264BLG-10L(REEL)
IC06	B4002-0091	IC-MCU:27C512-15D VTR SOP
IC07	62119-701-133	IC-FP:KM6264BLG-10L(REEL)
IC08	B4008-0048	IC:CXA1145M SIP
IC09	62119-103-648	IC:LA7213
J01	61453-130-200	C-CERAMIC.CHP:0805 5A 200JAT MA
L01	62427-812-339	COIL-PEAKING:EL0606RA 3.3uH-J
L03	62427-812-100	COIL-PEAKING:EL0606RA 10uH-J
Q01	62129-101-172	TRANSISTOR.CHP:KSC1623G(REEL)
Q02	62129-101-080	TRANSISTOR.CHP:KSA 812-G(REEL)

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
Q03	62129-101-172	TRANSISTOR.CHIP:KSC 1623G(REEL)
Q04	62129-101-172	TRANSISTOR.CHIP:KSC 1623G(REEL)
Q05	62129-101-080	TRANSISTOR.CHIP:KSA 812-G(REEL)
R01	61079-917-103	R-CHIP:RH C2012 CS 103-J
R02	61079-917-223	R-CHIP:RH C2012 CS 223-J
R03	61079-917-682	R-CHIP:RH C2012 CS 682-J
R04	61079-917-472	R-CHIP:RH C2012 CS 472-J
R05	61079-917-103	R-CHIP:RH C2012 CS 103-J
R06	61079-917-103	R-CHIP:RH C2012 CS 103-J
R07	61079-917-101	R-CHIP:RH C2012 CS 101-J
R08	61079-917-101	R-CHIP:RH C2012 CS 101-J
R09	61079-917-472	R-CHIP:RH C2012 CS 472-J
R10	61079-917-101	R-CHIP:RH C2012 CS 101-J
R11	61079-917-472	R-CHIP:RH C2012 CS 472-J
R12	61079-917-101	R-CHIP:RH C2012 CS 101-J
R15	61079-917-103	R-CHIP:RH C2012 CS 103-J
R16	61079-917-103	R-CHIP:RH C2012 CS 103-J
R17	61079-917-103	R-CHIP:RH C2012 CS 103-J
R18	61079-917-103	R-CHIP:RH C2012 CS 103-J
R19	61079-917-913	R-CHIP:RH C2012 CS 913-J
R20	61079-917-273	R-CHIP:RH C2012 CS 273-J
R21	61079-917-562	R-CHIP:RH C2012 CS 562-J
R22	61079-917-562	R-CHIP:RH C2012 CS 562-J
R23	61079-917-562	R-CHIP:RH C2012 CS 562-J
R24	61079-917-102	R-CHIP:RH C2012 CS 102-J
R25	61079-917-102	R-CHIP:RH C2012 CS 102-J
R26	61079-917-102	R-CHIP:RH C2012 CS 102-J
R27	61079-917-102	R-CHIP:RH C2012 CS 102-J
R28	61079-917-153	R-CHIP:RH C2012 CS 153-J
R29	61079-917-273	R-CHIP:RH C2012 CS 273-J
R30	61079-917-102	R-CHIP:RH C2012 CS 102-J
R31	61079-917-122	R-CHIP:RH C2012 CS 122-J
R33	61079-917-102	R-CHIP:RH C2012 CS 102-J
R34	61079-917-102	R-CHIP:RH C2012 CS 102-J
R35	61079-917-102	R-CHIP:RH C2012 CS 102-J
R36	61079-917-154	R-CHIP:RH C2012 CS 154-J
R38	61079-917-103	R-CHIP:RH C2012 CS 103-J
R39	61079-917-334	R-CHIP:RH C2012 CS 334-J
R40	61079-917-332	R-CHIP:RH C2012 CS 332-J
R42	61079-917-822	R-CHIP:RH C2012 CS 822-J
R43	61079-917-220	R-CHIP:RH C2012 CS 220-J
R44	61079-917-102	R-CHIP:RH C2012 CS 102-J
R45	61079-917-334	R-CHIP:RH C2012 CS 334-J
R52	61079-917-333	R-CHIP:RH C2012 CS 333-J
R55	61079-917-472	R-CHIP:RH C2012 CS 472-J
X01	64539-012-525	CRYSTAL:12.000MHZ
X02	64539-012-544	CRYSTAL:27MHZ
X03	64539-012-040	CRYSTAL:4.433619MHZ

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION

6. MECHANICAL EXPLODED VIEW/ PARTS LIST

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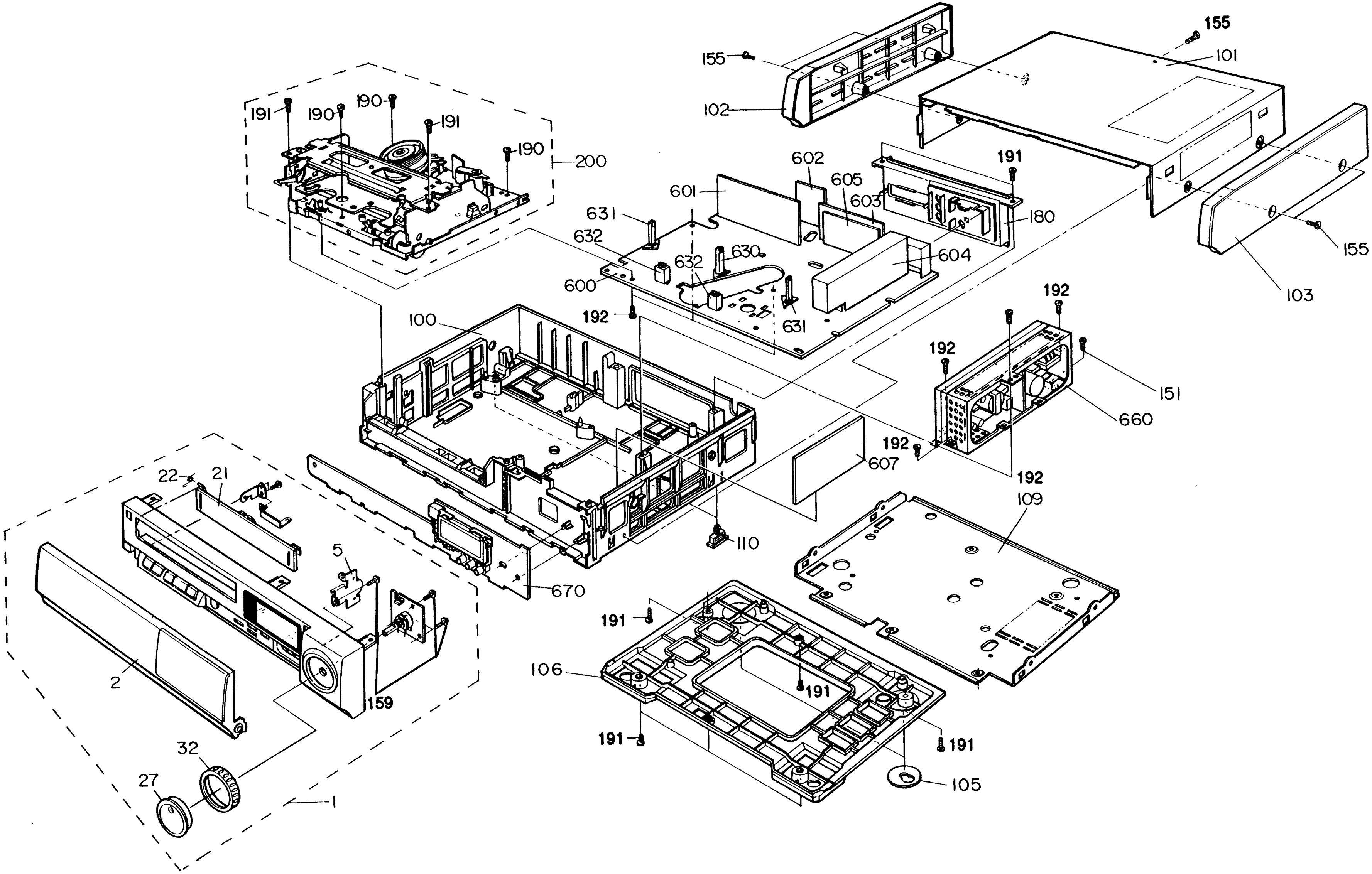
6-2. Mechanical Parts (1) ; Top View --------- 6-4

6-3. Mechanical Parts (2) ; Bottom View ------ 6-6

6-4. Housing Assembly ------------------ 6-8

6-1. Instrument Assembly



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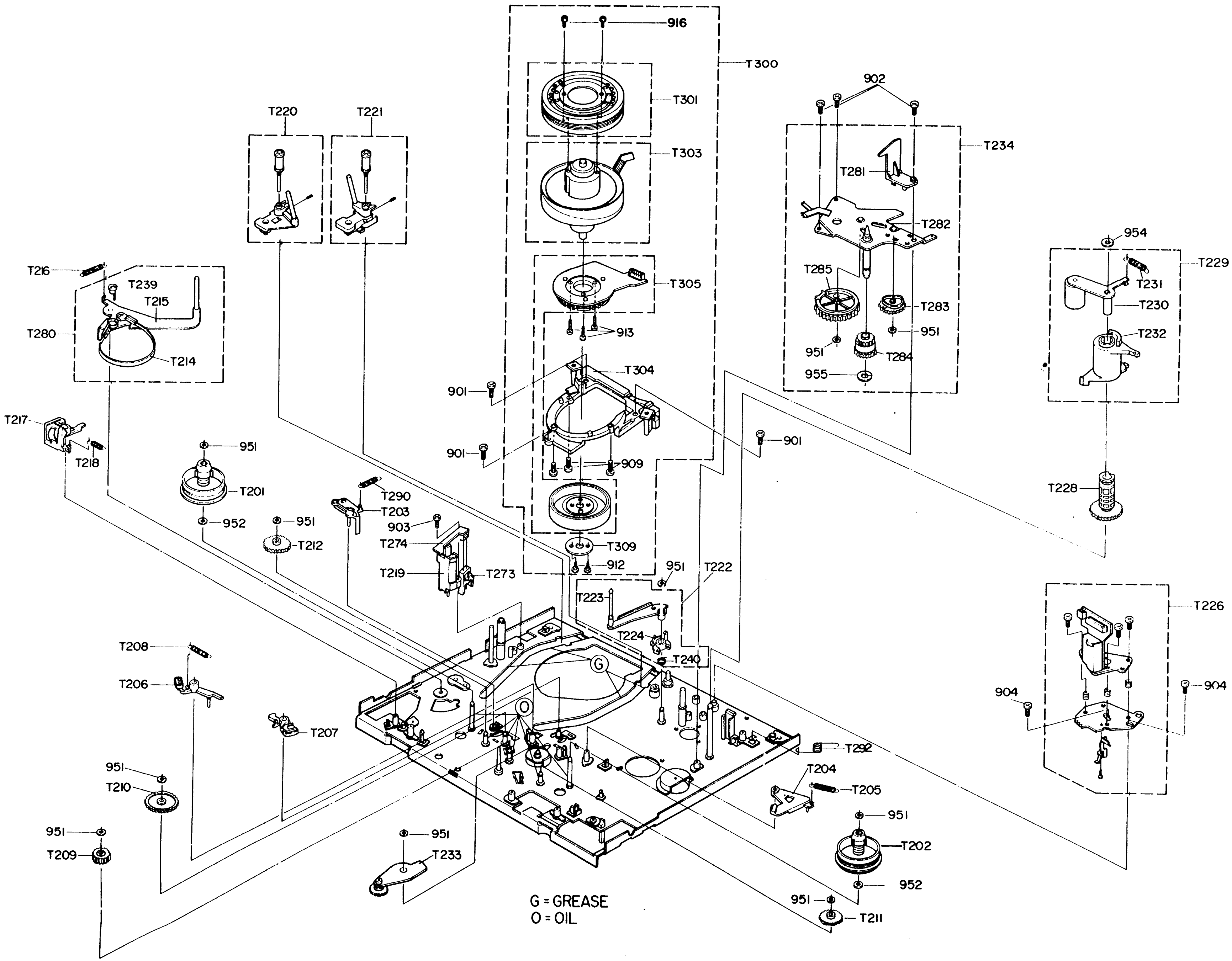
LOCA.NO	PART–NUMBER	DESCRIPTION;SPECIFICATION
1	69000–302–403	ASSY PANEL FRONT;VX–380/SEG
	69000–302–407	ASSY PANEL FRONT;VX–380/QUE
2	69000–100–482	DOOR FRONT ASSY;VX–380/SEG
	69000–100–484	DOOR FRONT ASSY;VX–380/QUE
5	69000–100–452	DAMPER ASSY
21	64043–0043–22	DOOR–CASSETTE;ABS94HB T2.1 BLK SPARY
22	62724–0090–00	SPRING;SUS304 (GE/RCA)
27	64084–0234–00	KNOB–SHUTTLE;ABS94HB GRY
32	62024–0009–00	BAND–SHUTTLE;SILICON RUBBER T1.5 BLK
100	62210–0031–00	FRAME;HIPS94HB T2 BLK
101	62002–0009–05	CABINET–TOP;FE+PVC T0.75 GRY HOLE
102	69000–302–329	ASSY PANEL SIDE L;ABS94HB+PVC T0.3
103	62061–0054–00	PANEL–SLIDE R;ABS94HB GRY
105	68712–608–010	CUSHION LEG–LEFT;SX–1260 EVE SPONGE
106	62061–0056–00	PANEL–LEG;HIPS94HB BLK
109	63312–0032–00	COVER–BOTTOM;SECC T0.5
110	66074–601–410	LEG;VT–1260 TPE(BLK)7705
151	60504–0040–00	SCREW–TAP TITE;BH + TB 3 L12 SWRCH18A ZPC3 YEL
155	67158–240–163	SCREW–TAP BH;2–4X16 FE FZB
159	67154–101–410	SCREW–TAP.PWH;2S–3X6 FE FZY
180	69333–100–102	ASSY PART CON–BOD(HI–F0);HIPS94HB+PVC
190	67158–240–121	SCREW BH;2–4*12 FE FZY
191	60504–0040–00	SCREW–TAP TITE;BH + TB 3 L12 SWRCH18A ZPC3 YEL
192	67158–230–120	SCREW–TAP TITE BH;3X10 FE FZY
200	DX3W–R	FULL DECK ASSY;NTSC WINNER DECK
600	69357–302–269	ASSY MAIN;X–3 PAL/MESECAM
601	69312–302–244	ASSY PREAMP;X–3 PAL 6H'D HI–FI
602	69353–302–201	ASSY OSP;X–3 W–PAL
603	69326–302–207	ASSY I/O;X–3 PAL HI–FI TTX
604	69322–302–236	ASSY VIF PACK;X–3 PAL HI–FI B/G A2
605	69324–302–205	ASSY HI–FI;X–3 PAL HI–FI TTX
607	69054–603–222	ASSY TOP;X–3 PAL/MESECAM VX–380/SEG
	69311–302–203	ASSY TOP;X–3 PAL/MESECAM VX–380/QUE
630	63322–0174–00	HOLDER–LED;POM BLK
631	63322–0173–00	HOLDER–TR;POM BLK
632	63323–0060–00	HOLDER–PHOTO INTER;POM M90–44 H14.1 WHT(WINNER)
660	69098–220–502	REGULATOR ASSY;PAL FREE CP2 FTZ W–2
670	69373–302–214	ASSY TIMER;X–3 PAL/MESECAM

6-2. Mechanical Parts (1) ; Top View



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G = GREASE
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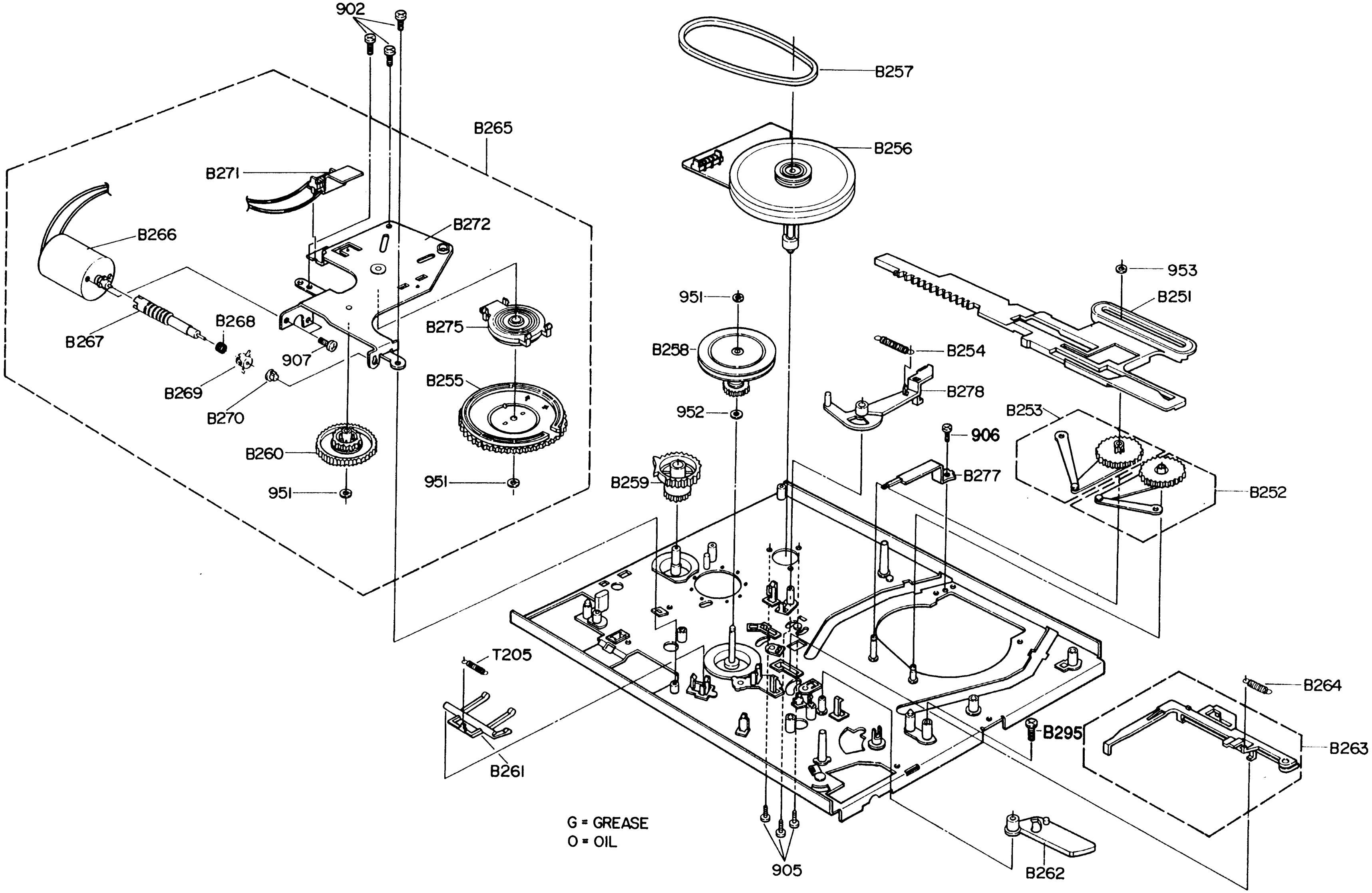
LOCA NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
901	60509-0064-00	SCREW-MACHINE;BH FP M3 L8 FE FZY
902	60509-0063-00	SCREW-TAPPING;BH B M3 L8 FE FZY
903	60504-0032-00	SCREW-PH;PH + 3 2.6 L10 SUM ZN YEL
904	60509-0059-00	SCREW-MACHINE;BH FP M2.6 L6 FE FZY
909	67008-126-081	SCREW-PH;+M2.6X8 FE FZY
912	67094-604-710	SCREW-DAMPER;M2.0X7.0 SWCM 10(MFZN2-C)
913	67008-123-101	SCREW-PH;+M2.3X10 FE FZY
916	67004-126-086	SCREW-BH;+M2.6X8 WSZN/70391398
951	67334-600-310	WASHER SLIT;PI2.5XPI5XT0.5
952	67304-103-410	WASHER-PLAIN;3.2X6X0.5 POLYSLIDER
954	60534-0024-00	WASHER-SLIT;ID3 OD8 T0.5 POLYSLIDE
955	60534-0019-00	WASHER-SLIT;A ID5 OD9 T0.5 POLYSLIDE
T201	61574-0010-01	REEL DISK(L) ASSY;X3RL03032A
T202	61574-0012-01	REEL DISK(R) ASSY;X3RL 03031A
T203	66603-620-110	BRAKE SUB L;POM(M90-44) NAT
T204	62614-0004-01	BRAKE SUB(R) ASSY;X3RL02021A
T205	66674-652-610	S/P BRAKE SUB "R";SUS304 WPB
T206	62614-0003-01	BRAKE MAIN(L) ASSY;X3RL02022A
T207	62614-0002-01	BRAKE MAIN(R) ASSY;X3RL02021A
T208	66674-652-510	S/P BRAKE MAIN;SUS304 WPB
T209	61474-0061-01	GEAR RELAY S1;PEBAX #6333
T210	61474-0062-01	GEAR RELAY S2;POM(M90-44) NAT
T211	61474-0060-01	GEAR RELAY T;PEBAX #6333
T212	61474-0063-01	GEAR RELAY S3;PEBAX #6333
T214	62024-0005-01	BAND TENSION ASSY;X3RL04051A
T215	69000-290-579	ARM-TENSION ASSY;SECC+SUS
T216	66674-652-910	SPRING TENSION;SUS304
T217	61533-0064-00	LEVER REC S/W;POM M90-44 H12.1 NAT
T218	62724-0075-00	S/P RECORD S/W;SUS304
T219	64079-700-454	HEAD MAGNETIC F/E;VTR-1X2ERS11-089(X-1)
T220	69000-291-035	ASSY-P.B & G.R(L);X-3
T221	69000-291-036	ASSY-P.B & G.R(R);X-3
T222	69000-291-004	FULL REVIEW ARM ASSY;X-3
T223	61544-0032-00	REVIEW ARM ASSY;SECC+SUS303C+C3604BD
T224	61473-0059-01	GEAR REVIEW;POM(M90-44) NAT
T226	69000-291-032	A/C HEAD ASSY;X-3(WINNER)
T228	61472-0054-01	GEAR ESCALATOR;POM(M90-44)
T229	61523-0021-01	PINCH ROLLER UNIT;X-3A
T230	61543-0040-01	ARM PINCH ASSY;SECC 1.6+SUS+C3604BD
T231	62724-0062-01	S/P PINCH ROLLER;SUS304-WPB

LOCA NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
T232	63323-0043-01	HOLDER ESCALATOR;PC 30%
T233	61604-0003-01	IDLER SUB ASSY;X3RL 06061A
T234	67179-0069-01	UNIT-DRIVE PINCH;X-3
T239	66654-617-810	CAM TENSION;POM(M90-44) WHT
T240	62724-0117-00	SPRING-REVIEW;CS STS304/WPB PI0.45 D5 L5.5
T273	B6010-0248	CONNECTOR-WAFER;TMC-E02P-D1 BLK
T274	66029-0296-00	P.C.B F/E HEAD;1V0 T1.6 W29 L180 VT-350R
T280	69000-290-560	ASSY FULL ARM TENSION;SECC+SUS+POM+FELT
T281	63073-0015-00	SUPPORTER-LID OPENNER;POM(M90-44) T2 X-3
T282	63012-0098-00	BRKT PINCH DRIVE;SECC T1.0
T283	61473-0058-01	GEAR CAM PINCH;POM(OL-10)
T284	61473-0056-01	GEAR RELAY PINCH;PBT #2002
T285	61473-0057-01	GEAR CAM DRIVE;POM(OL-10)
T290	62724-0101-00	S/P BRAKE SUB
T292	62724-0082-01	S/P ESCALATOR;SUS304-WPB
T300	69020-123-008	CYLINDER ASSY;CX3-H6P
T301	69000-390-026	ASSY-UPPER CYLINDER;CX1H6P
T303	69000-400-014	LOWER CYLINDER ASSY;CX3-H6N
T304	62201-0051-00	BASE-CYLINDER;ADC12 WHT X-3W
T305	66823-0043-00	MOTOR-CYLINDER;DMVDMT 04C
T309	66124-601-710	RETAINER-RUBBER ASSY;SECC+SILICONE

6-3. Mechanical Parts (2) ; Bottom View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G = GREASE
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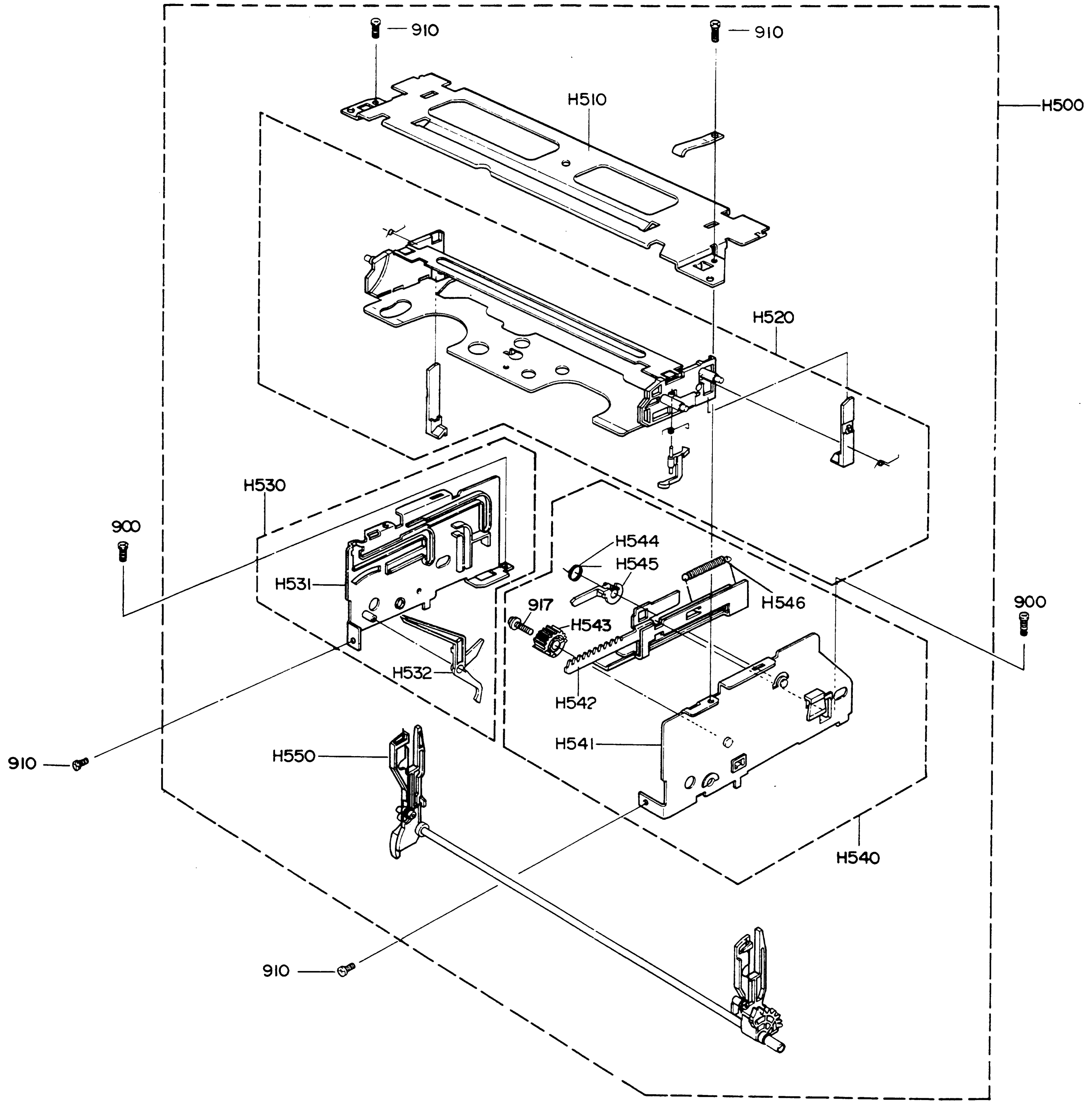
LOCA NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
902	60509-0063-00	SCREW-TAPPING;BH B M3 L8 FE FZY
905	60504-0044-00	SCREW-TAPPING;BH + 3 M2.6 L7.5 SWRCH18A ZPC3 YEL
906	60509-0058-00	SCREW-MACHINE;BH FP M3 L4 SWRCH10A
951	67334-600-310	WASHER SLIT;PI2.5XPI5XT0.5
952	67304-103-410	WASHER-PLAIN;3.2X6X0.5 POLYSLIDER
953	67334-601-830	SLIT WASHER;2.5X9X0.5(RED)
B251	66602-603-510	SLIDE MAIN;PBT 6300T(NAT)
B252	61473-0047-01	GEAR LOADING "L" ASS'Y;X-3
B253	61473-0045-01	GEAR LODAING "R" ASS'Y;X-3
B254	66674-652-810	S/P BRAKE CAPSTAN;SUS304 WPB
B255	61472-0055-02	GEAR MASTER;POM(M90-44)
B256	66829-0024-02	MOTOR-D/D CAPSTAN;F2QKB 39 12V DX3W
B257	65274-603-910	BELT CAPSTAN;CY-65
B258	61453-0001-01	CLUTCH ASSY;X3RL10101A
B259	61473-0051-01	GEAR E/J DRIVE;KOPER(KN333G30)
B260	61473-0053-02	GEAR WORM WHEEL;NYLON 12
B261	66603-619-510	LEVER SHIFT;POM(M90-44)
B262	61534-0040-01	LEVER TENSION CONTROL;POM(M90-44) NAT
B263	61643-0016-01	SLIDE I.B ASSY;X3RL02021A
B264	62724-0129-00	SPRING-RELEASE BRAKE;SUS304 WPB
B265	67179-0068-02	L/D UNIT ASSY;X-3W
B266	66824-0013-01	L/D MOTOR ASSY;RF370C+POM
B267	69000-291-056	WORM LOADING ASSY;POM+SUS
B268	62724-0061-01	S/P CLUTCH;SUS304-WPB
B269	61504-0006-01	PULLEY RELEASE;POM(M90-44)
B270	63324-0042-01	HOLDER SHAFT;POM(M90-44)
B271	69000-291-054	CON. WAFER ASSY;WAFER+FPC+LEAD WIRE
B272	63011-0097-00	BRKT LOADING;SECC E20/20(T1.2)
B275	66203-0007-02	PROGRAM S/W;SMRS30A(K-ALPS)
B277	63374-0002-00	HEAD BRUSH ASSY;SECC+CARBON
B278	62614-0005-01	BRAKE DD CAP ASSY;X3RL02021A
B295	60504-0070-00	SCREW-TAP TITE;PWH + B M3 L8 SWCH1018 YEL
T205	66674-652-610	S/P BRAKE SUB "R";SUS304 WPB

6-4. Housing Assembly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LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
900	60509-0061-00	SCREW-MACHINE;BH FP M3 L6 FE FZY
910	60509-0062-00	SCREW-TAP TITE;BH + TS M3 L6 FE FZY
917	67154-101-420	SCREW-TAP PWH;2S-3X8 FE FZY
H500	62052-0004-00	F/L HOUSING ASSY;X-3 FL28300A
H510	62202-0029-00	CHASSIS-UPPER;SECC E20/20 T1.2
H520	63322-0044-00	HOLDER-CASS ASSY;X3FL11120A
H530	62203-0027-00	CHASSIS SIDE "L"ASS'Y;X3FL02020A
H531	62203-0028-00	CHASSIS SIDE "L" OUTSERT;SECC T1.2+LUCEL/KEPITAL
H532	61533-0043-00	LEVER DOOR;LUCEL-N109-LD/KEPITAL F20-03
H540	62203-0025-00	CHASSIS SIDE "R" ASS'Y;X3FL08080A
H541	62203-0026-01	CHASSIS SIDE "R";SECC T1.2 LVCEL
H542	61474-0080-00	GEAR RACK ASSY;SECC T1.6+SWPB
H543	61473-0064-01	GEAR-JOINT;LUCEL MR-320/KT-20
H544	62724-0067-00	SPRING LEVER DAMPER;SUS304 WPB
H545	61533-0042-00	LEVER DAMPER;LUCEL N109-LD/KEPITAL F20-03
H546	62724-0112-00	SPRING-GEAR RACK;ES SWPB PI0.5 D3.5
H550	61043-0025-00	SHAFT ARM ASSY;X3FL05050A

7. BLOCK DIAGRAMS

Page

7-1. Total Wiring Diagram - - - - - - - - - - - - - - - - 7-2

7-2. Cylinder Phase Control - - - - - - - - - - - - - - 7-3

7-3. Cylinder Speed Control - - - - - - - - - - - - - - 7-3

7-4. Capstan Phase Control - - - - - - - - - - - - - - 7-4

7-5. Capstan Speed Control - - - - - - - - - - - - - - 7-4

7-6. Linear Audio Playback Process - - - - - - - - 7-5

7-7. Linear Audio Record Process - - - - - - - - - 7-5

7-8. Hi-Fi Audio Playback Process - - - - - - - - - 7-6

7-9. Hi-Fi Audio Record Process - - - - - - - - - - 7-7

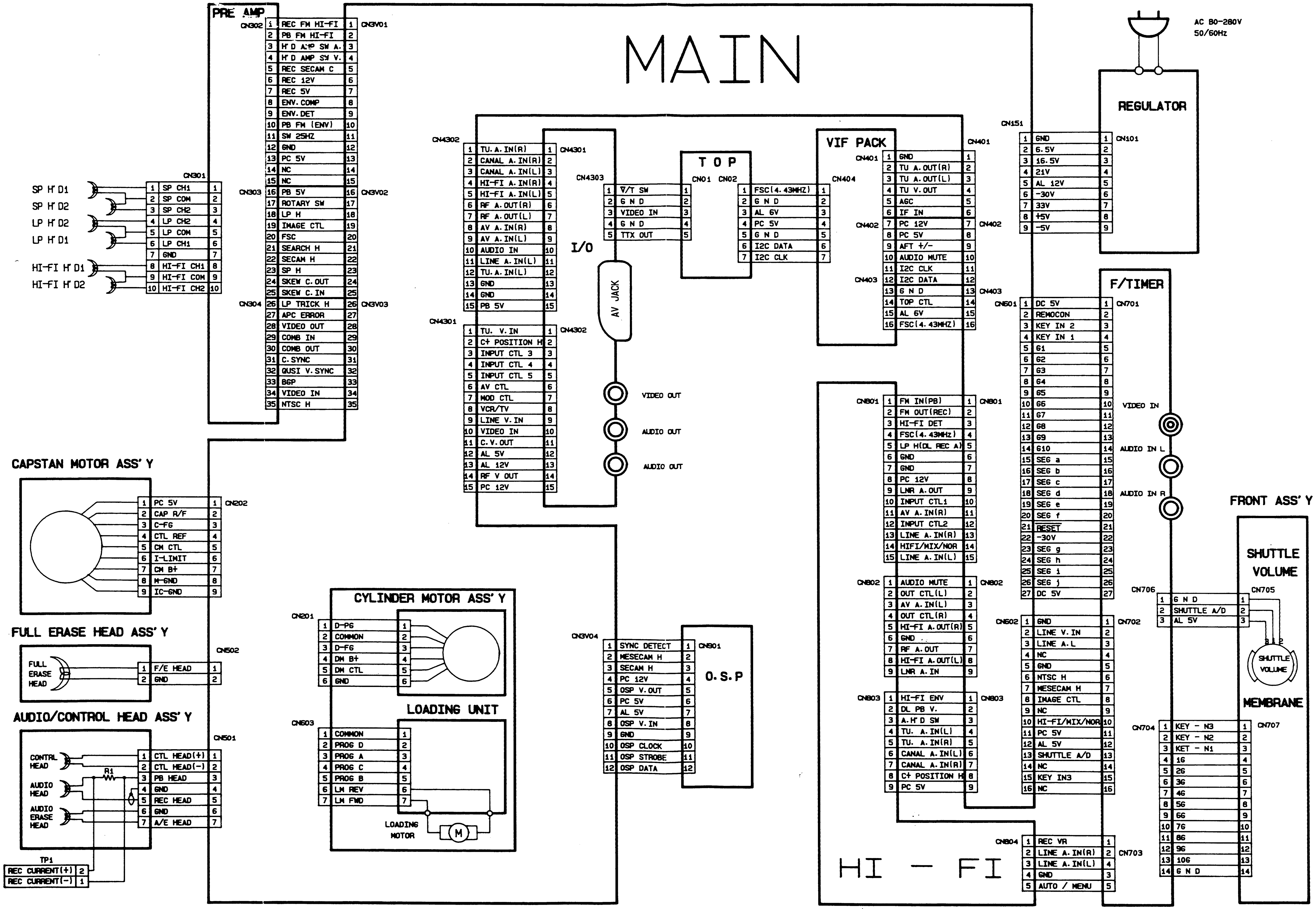
7-10. Luminance Playback Process - - - - - - - - - 7-8

7-11. Luminance Record Process - - - - - - - - - - 7-9

7-12. Chrominance Playback Process - - - - - - - 7-10

7-13. Chrominance Record Process - - - - - - - - - 7-11

7-1. Total Wiring Diagram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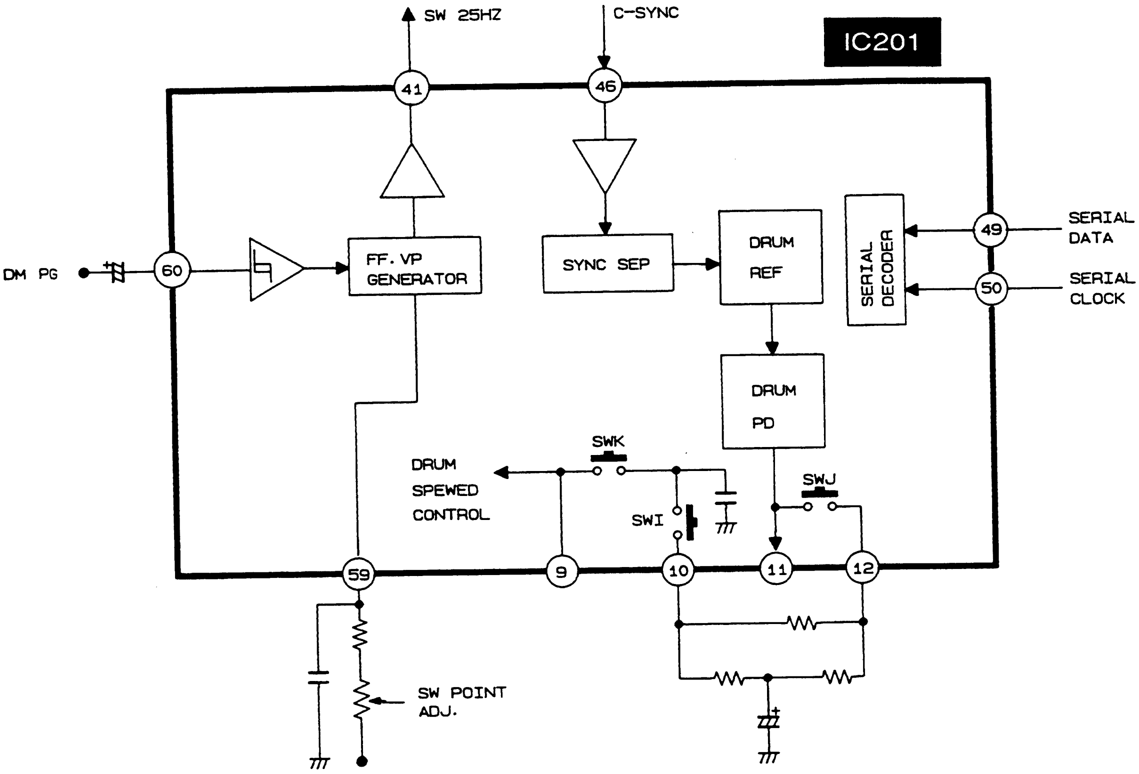
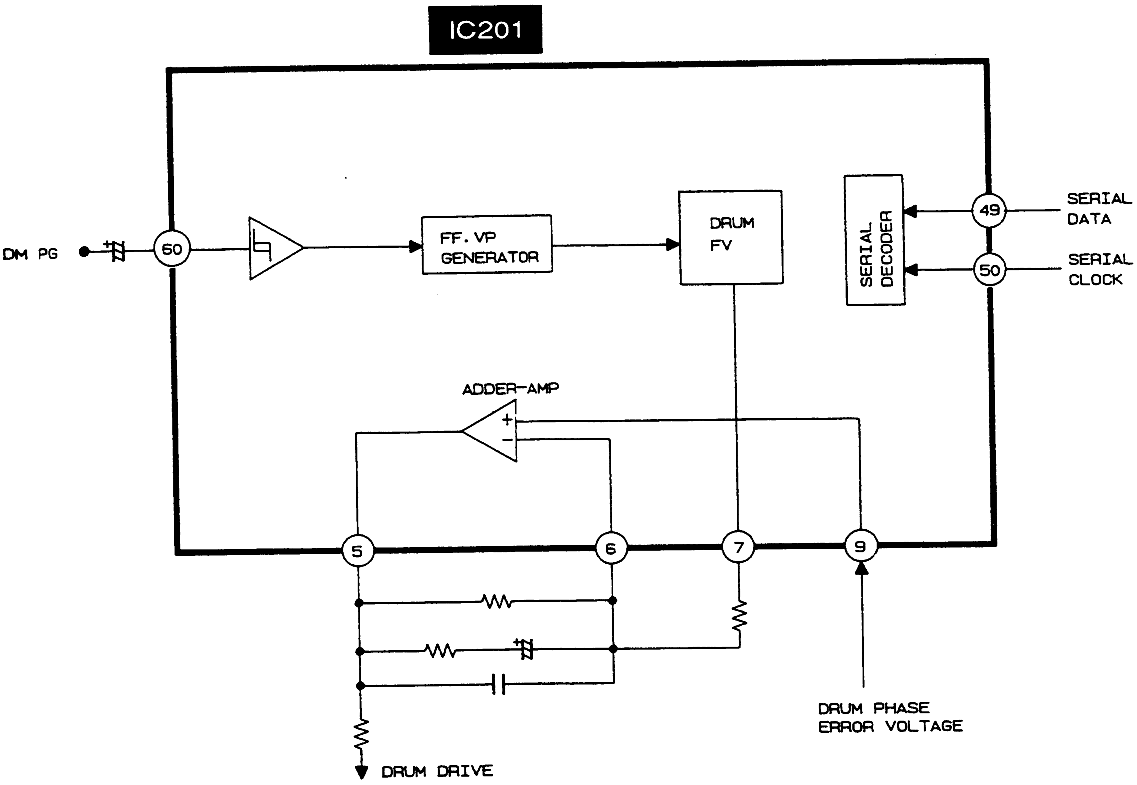
CN302
CN3V01
1 REC FM HI-FI 1
2 PB FM HI-FI 2
3 H'D AMP SW A. 3
4 H'D AMP SW V. 4
5 REC SECAM C 5
6 REC 12V 6
7 REC 5V 7
8 ENV. COMP 8
9 ENV. DET 9
10 PB FM (ENV) 10
11 SW 25HZ 11
12 GND 12
13 PC 5V 13
14 NC 14
15 NC 15
CN303
CN3V02
16 PB 5V 16
17 ROTARY SW 17
18 LP H 18
19 IMAGE CTL 19
20 FSC 20
21 SEARCH H 21
22 SECAM H 22
23 SP H 23
24 SKEW C. OUT 24
25 SKEW C. IN 25
CN304
CN3V03
26 LP TRICK H 26
27 APC ERROR 27
28 VIDEO OUT 28
29 COMB IN 29
30 COMB OUT 30
31 C. SYNC 31
32 QUSI V. SYNC 32
33 BGP 33
34 VIDEO IN 34
35 NTSC H 35
SP H'D1
SP H'D2
LP H'D2
LP H'D1
HI-FI H'D1
HI-FI H'D2
CN301
1 SP CH1 1
2 SP COM 2
3 SP CH2 3
4 LP CH2 4
5 LP COM 5
6 LP CH1 6
7 GND 7
8 HI-FI CH1 8
9 HI-FI COM 9
10 HI-FI CH2 10
MAIN
CN4302
CN4301
1 TU. A. IN(R) 1
2 CANAL A. IN(R) 2
3 CANAL A. IN(L) 3
4 HI-FI A. IN(R) 4
5 HI-FI A. IN(L) 5
6 RF A. OUT(R) 6
7 RF A. OUT(L) 7
8 AV A. IN(R) 8
9 AV A. IN(L) 9
10 AUDIO IN 10
11 LINE A. IN(L) 11
12 TU. A. IN(L) 12
13 GND 13
14 GND 14
15 PB 5V 15
CN4301
CN4302
1 TU. V. IN 1
2 C+ POSITION H 2
3 INPUT CTL 3 3
4 INPUT CTL 4 4
5 INPUT CTL 5 5
6 AV CTL 6
7 MOD CTL 7
8 VCR/TV 8
9 LINE V. IN 9
10 VIDEO IN 10
11 C. V. OUT 11
12 AL 5V 12
13 AL 12V 13
14 RF V OUT 14
15 PC 12V 15
I/O
AV JACK
VIDEO OUT
AUDIO OUT
AUDIO OUT
CN4303
1 ∇/T SW 1
2 G N D 2
3 VIDEO IN 3
4 G N D 4
5 TTX OUT 5
T O P
CN01 CN02
1 FSC(4. 43MHZ) 1
2 G N D 2
3 AL 6V 3
4 PC 5V 4
5 G N D 5
6 I2C DATA 6
7 I2C CLK 7
CN404
VIF PACK
CN401
CN401
1 GND 1
2 TU A. OUT(R) 2
3 TU A. OUT(L) 3
4 TU V. OUT 4
5 AGC 5
6 IF IN 6
CN402
CN402
7 PC 12V 7
8 PC 5V 8
9 AFT +/- 9
10 AUDIO MUTE 10
11 I2C CLK 11
12 I2C DATA 12
CN403
CN403
13 G N D 13
14 TOP CTL 14
15 AL 6V 15
16 FSC(4. 43MHZ) 16
AC 80-280V
50/60Hz
REGULATOR
CN151
CN101
1 GND 1
2 6. 5V 2
3 16. 5V 3
4 21V 4
5 AL 12V 5
6 -30V 6
7 33V 7
8 +5V 8
9 -5V 9
F/TIMER
CN601
CN701
1 DC 5V 1
2 REMOCON 2
3 KEY IN 2 3
4 KEY IN 1 4
5 G1 5
6 G2 6
7 G3 7
8 G4 8
9 G5 9
10 G6 10
11 G7 11
12 G8 12
13 G9 13
14 G10 14
15 SEG a 15
16 SEG b 16
17 SEG c 17
18 SEG d 18
19 SEG e 19
20 SEG f 20
21 RESET 21
22 -30V 22
23 SEG g 23
24 SEG h 24
25 SEG i 25
26 SEG j 26
27 DC 5V 27
VIDEO IN
AUDIO IN L
AUDIO IN R
CN801
CN801
1 FM IN(PB) 1
2 FM OUT(REC) 2
3 HI-FI DET 3
4 FSC(4. 43MHz) 4
5 LP H(DL REC A) 5
6 GND 6
7 GND 7
8 PC 12V 8
9 LNR A. OUT 9
10 INPUT CTL1 10
11 AV A. IN(R) 11
12 INPUT CTL2 12
13 LINE A. IN(R) 13
14 HIFI/MIX/NOR 14
15 LINE A. IN(L) 15
CN802
CN802
1 AUDIO MUTE 1
2 OUT CTL(L) 2
3 AV A. IN(L) 3
4 OUT CTL(R) 4
5 HI-FI A. OUT(R) 5
6 GND 6
7 RF A. OUT 7
8 HI-FI A. OUT(L) 8
9 LNR A. IN 9
CN803
CN803
1 HI-FI ENV 1
2 DL PB V. 2
3 A. H'D SW 3
4 TU. A. IN(L) 4
5 TU. A. IN(R) 5
6 CANAL A. IN(L) 6
7 CANAL A. IN(R) 7
8 C+ POSITION H 8
9 PC 5V 9
CN602
CN702
1 GND 1
2 LINE V. IN 2
3 LINE A. L 3
4 NC 4
5 GND 5
6 NTSC H 6
7 MESECAM H 7
8 IMAGE CTL 8
9 NC 9
10 HI-FI/MIX/NOR 10
11 PC 5V 11
12 AL 5V 12
13 SHUTTLE A/D 13
14 NC 14
15 KEY IN3 15
16 NC 16
CN804
CN703
1 REC VR 1
2 LINE A. IN(R) 2
3 LINE A. IN(L) 4
4 GND 3
5 AUTO / MENU 5
HI - FI
FRONT ASS' Y
SHUTTLE VOLUME
CN706
CN705
1 G N D 1
2 SHUTTLE A/D 2
3 AL 5V 3
3 1 2
SHUTTLE VOLUME
MEMBRANE
CN704
CN707
1 KEY - N3 1
2 KEY - N2 2
3 KET - N1 3
4 1G 4
5 2G 5
6 3G 6
7 4G 7
8 5G 8
9 6G 9
10 7G 10
11 8G 11
12 9G 12
13 10G 13
14 G N D 14
CN3V04
CN901
1 SYNC DETECT 1
2 MESECAM H 2
3 SECAM H 3
4 PC 12V 4
5 OSP V. OUT 5
6 PC 5V 6
7 AL 5V 7
8 OSP V. IN 8
9 GND 9
10 OSP CLOCK 10
11 OSP STROBE 11
12 OSP DATA 12
O. S. P
CAPSTAN MOTOR ASS' Y
CN202
1 PC 5V 1
2 CAP R/F 2
3 C-FG 3
4 CTL REF 4
5 CM CTL 5
6 I-LIMIT 6
7 CM B+ 7
8 M-GND 8
9 IC-GND 9
FULL ERASE HEAD ASS' Y
FULL ERASE HEAD
CN502
1 F/E HEAD 1
2 GND 2
AUDIO/CONTROL HEAD ASS' Y
CONTRL HEAD
AUDIO HEAD
AUDIO ERASE HEAD
R1
CN501
1 CTL HEAD(+) 1
2 CTL HEAD(-) 2
3 PB HEAD 3
4 GND 4
5 REC HEAD 5
6 GND 6
7 A/E HEAD 7
TP1
REC CURRENT(+) 2
REC CURRENT(-) 1
CYLINDER MOTOR ASS' Y
CN201
1 D-PG 1
2 COMMON 2
3 D-FG 3
4 DM B+ 4
5 DM CTL 5
6 GND 6
LOADING UNIT
CN603
1 COMMON 1
2 PROG D 2
3 PROG A 3
4 PROG C 4
5 PROG B 5
6 LM REV 6
7 LM FWD 7
LOADING MOTOR
M

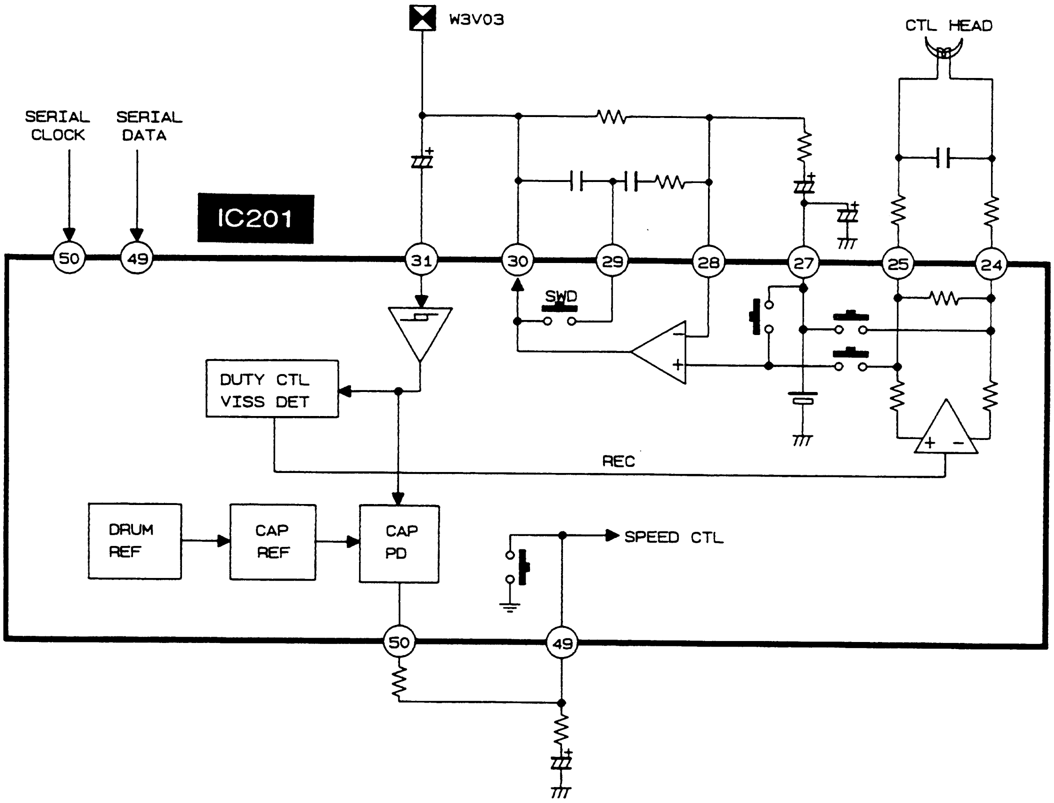
7-2. Cylinder Phase Control


SW 25HZ
C-SYNC
IC201
41
46
DM PG
60
FF. VP GENERATOR
SYNC SEP
DRUM REF
SERIAL DECODER
49
SERIAL DATA
50
SERIAL CLOCK
DRUM PD
SWK
DRUM SPEWED CONTROL
SWJ
SWI
59
9
10
11
12
SW POINT ADJ.

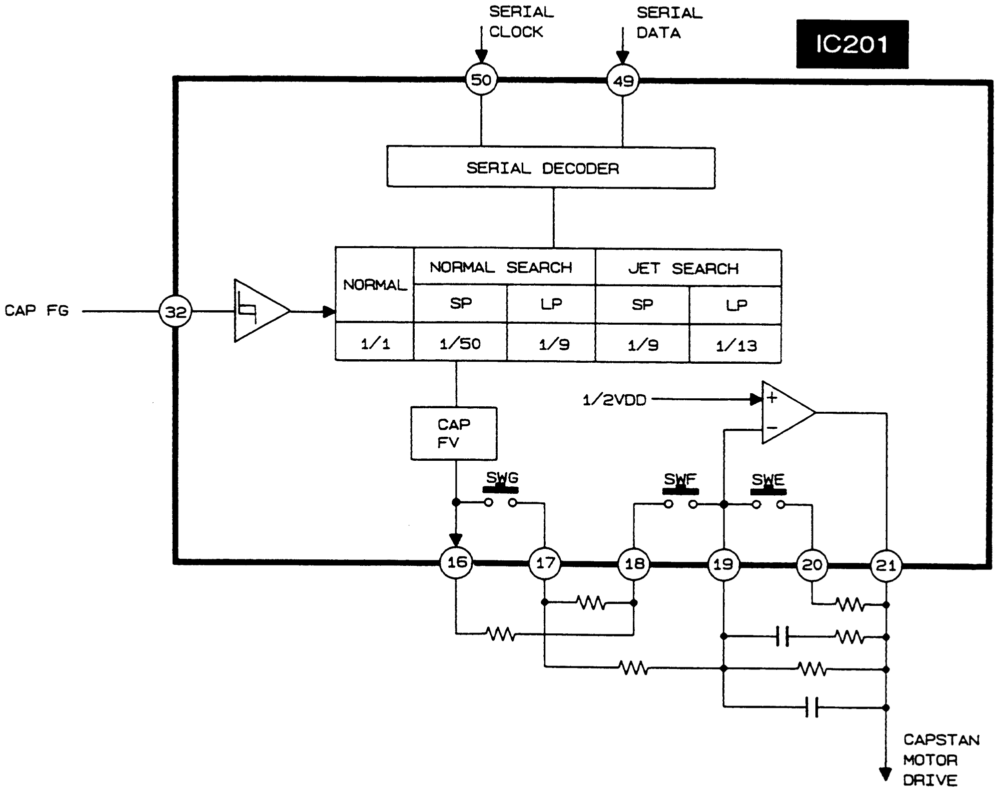
7-3. Cylinder Speed Control


IC201
DM PG
60
FF. VP GENERATOR
DRUM FV
SERIAL DECODER
49
SERIAL DATA
50
SERIAL CLOCK
ADDER-AMP
+
−
5
6
7
9
DRUM PHASE ERROR VOLTAGE
DRUM DRIVE

7-4. Capstan Phase Control

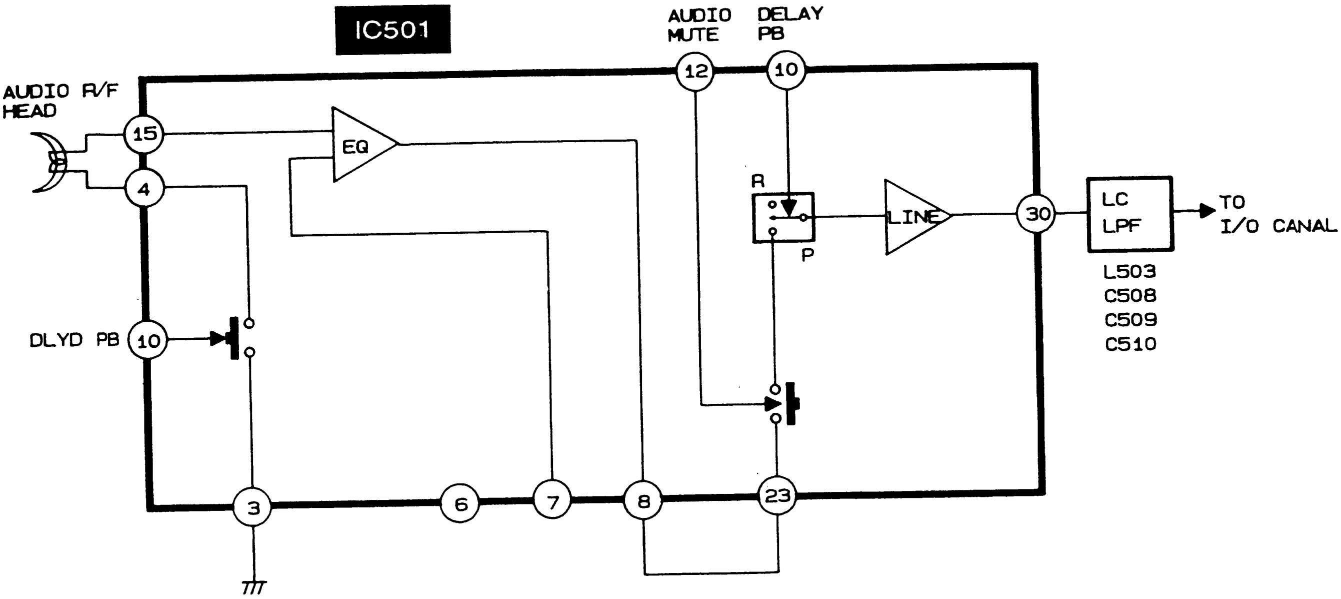

W3V03
CTL HEAD
SERIAL CLOCK
SERIAL DATA
IC201
50
49
31
30
29
28
27
25
24
SWD
DUTY CTL
VISS DET
REC
DRUM REF
CAP REF
CAP PD
SPEED CTL
50
49

7-5. Capstan Speed Control

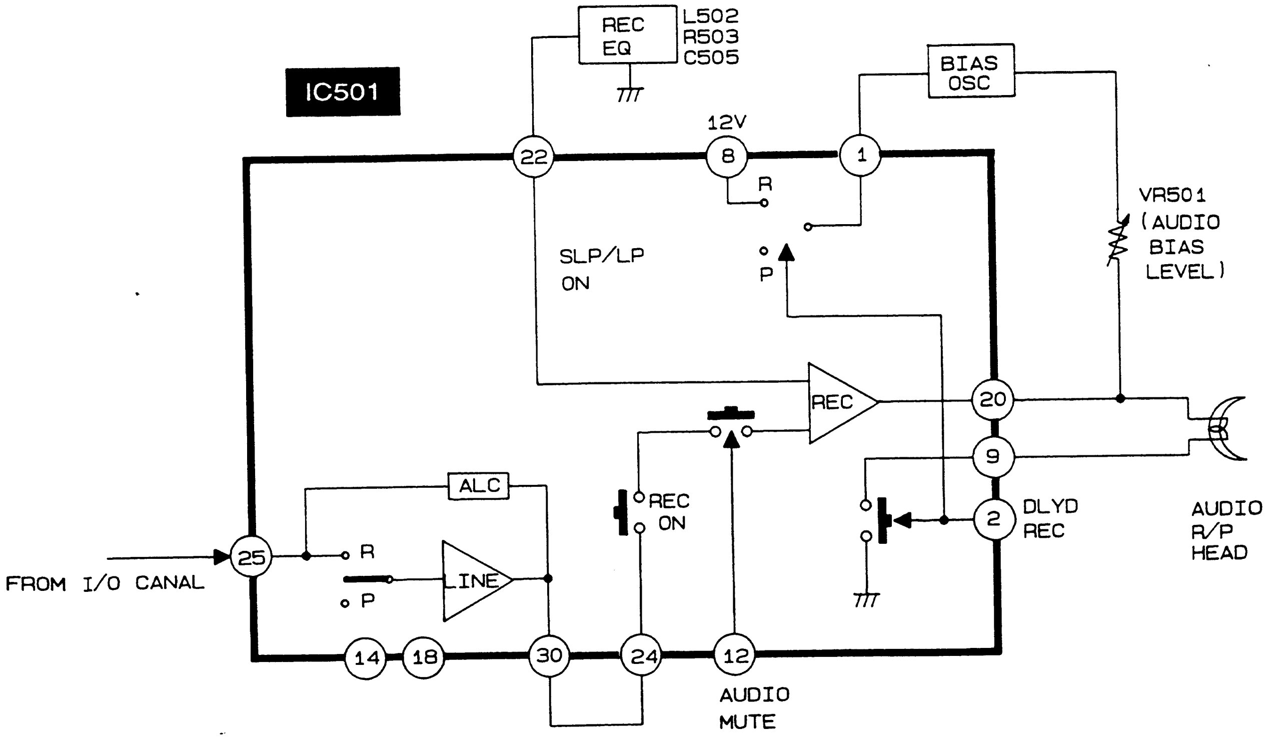

SERIAL CLOCK
SERIAL DATA
IC201
50
49
SERIAL DECODER
CAP FG
32
1/2VDD
CAP FV
SWG
SWF
SWE
16
17
18
19
20
21
CAPSTAN MOTOR DRIVE

NORMAL	NORMAL SEARCH		JET SEARCH	
	SP	LP	SP	LP
1/1	1/50	1/9	1/9	1/13

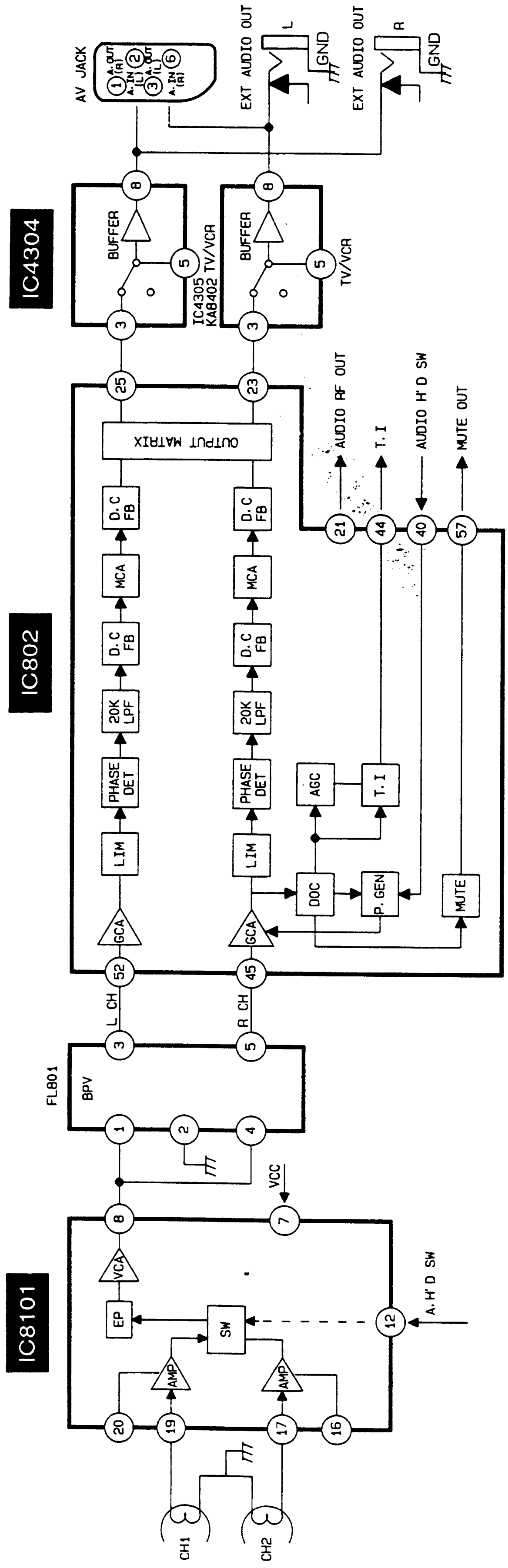
7-6. Linear Audio Playback Process


IC501
AUDIO MUTE
DELAY PB
AUDIO R/F HEAD
15
4
EQ
12
10
R
P
LINE
30
LC LPF
TO I/O CANAL
L503
C508
C509
C510
DLYD PB
10
3
6
7
8
23

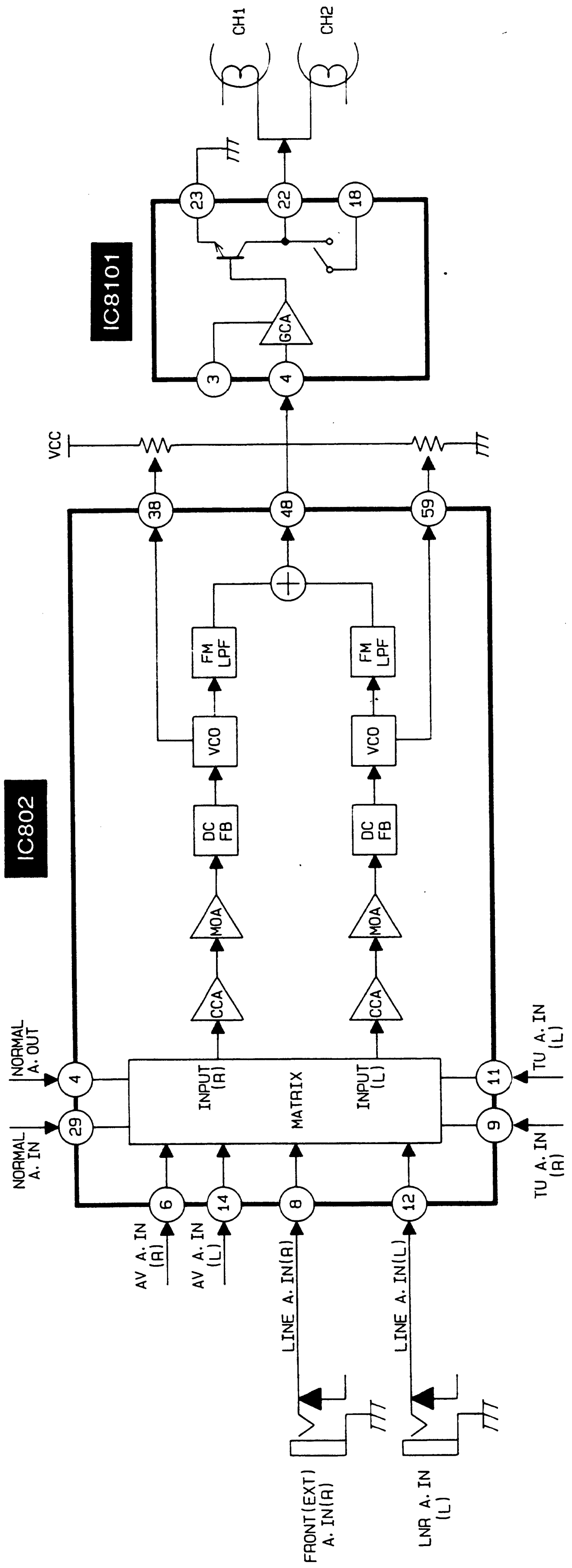
7-7. Linear Audio Record Process


REC EQ
L502
R503
C505
IC501
BIAS OSC
12V
22
8
1
R
SLP/LP ON
P
VR501 (AUDIO BIAS LEVEL)
REC
20
9
2
DLYD REC
AUDIO R/P HEAD
ALC
REC ON
FROM I/O CANAL
25
R
P
LINE
14
18
30
24
12
AUDIO MUTE

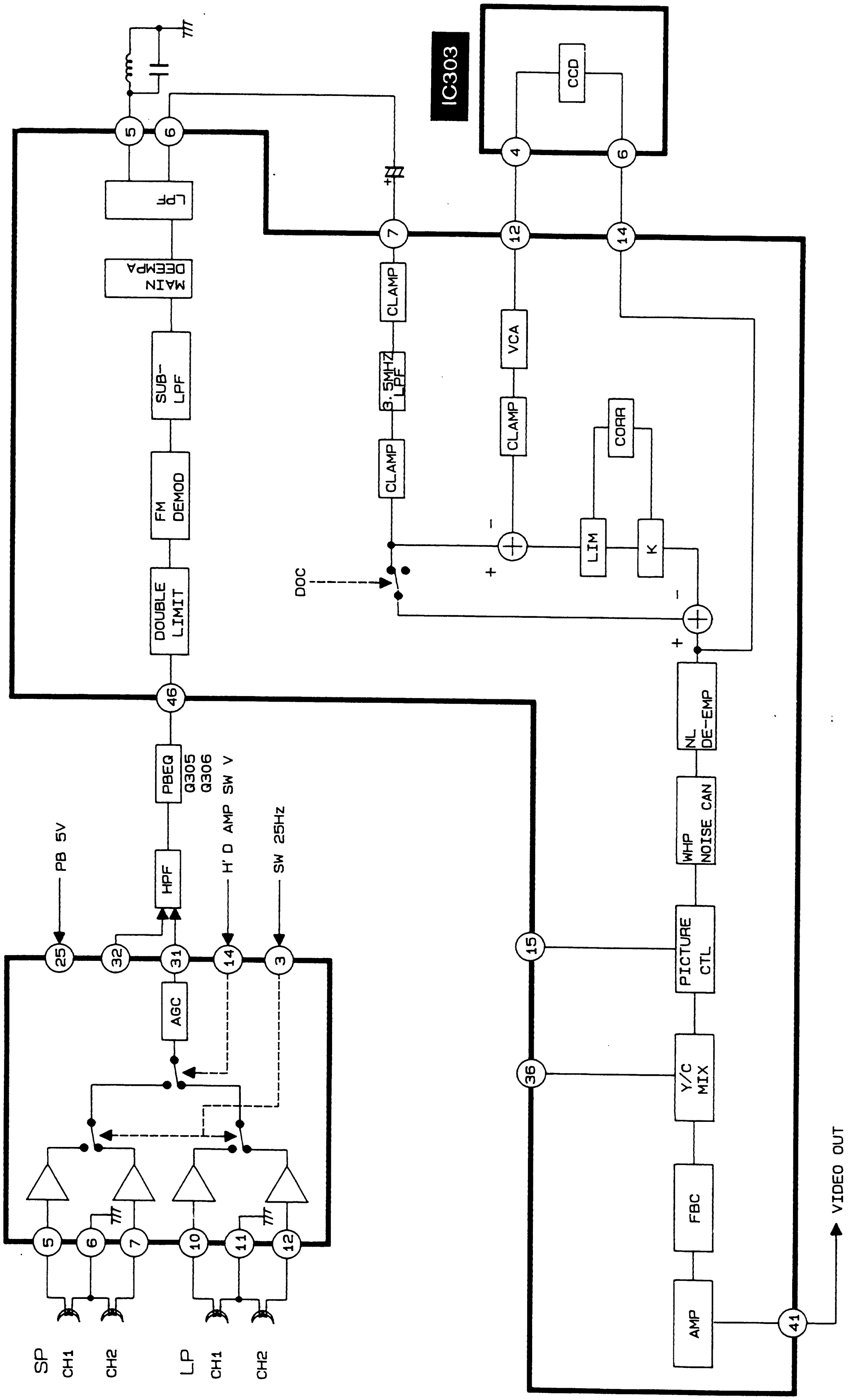
7-8. Hi-Fi Audio Playback Process


IC4304
IC802
IC8101
AV JACK
① A.OUT (R)
② A.IN (L)
③ A.OUT (L)
⑥ A.IN (R)
EXT AUDIO OUT
L
R
GND
BUFFER
TV/VCR
IC4305
KA8402
OUTPUT MATRIX
D.C FB
MCA
20K LPF
PHASE DET
LIM
GCA
AGC
T.I
DOC
P.GEN
MUTE
AUDIO RF OUT
AUDIO H'D SW
MUTE OUT
L CH
R CH
FL801
BPV
VCC
VCA
EP
SW
AMP
A.H'D SW
CH1
CH2
8
5
3
25
23
21
44
40
57
52
45
1
2
4
7
12
20
19
17
16

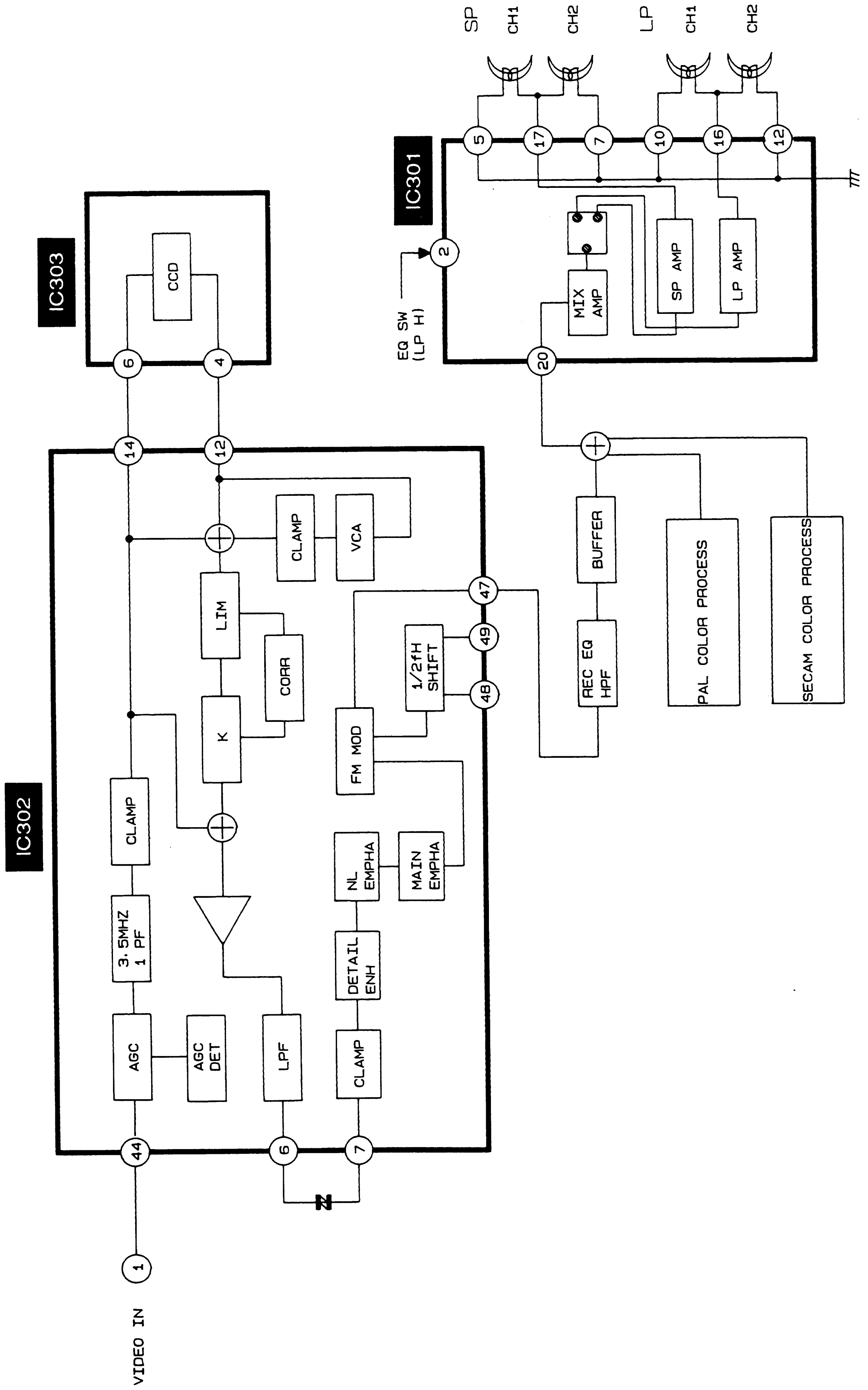
7-9. Hi-Fi Audio Record Process


CH1
CH2
IC8101
23
22
18
GCA
3
4
VCC
38
48
59
IC802
FM LPF
VCO
DC FB
MOA
CCA
NORMAL A. OUT
NORMAL A. IN
4
29
INPUT (R)
MATRIX
INPUT (L)
11
9
TU A. IN (L)
TU A. IN (R)
6
14
8
12
AV A. IN (R)
AV A. IN (L)
LINE A. IN(R)
LINE A. IN(L)
FRONT(EXT) A. IN(R)
LNR A. IN (L)

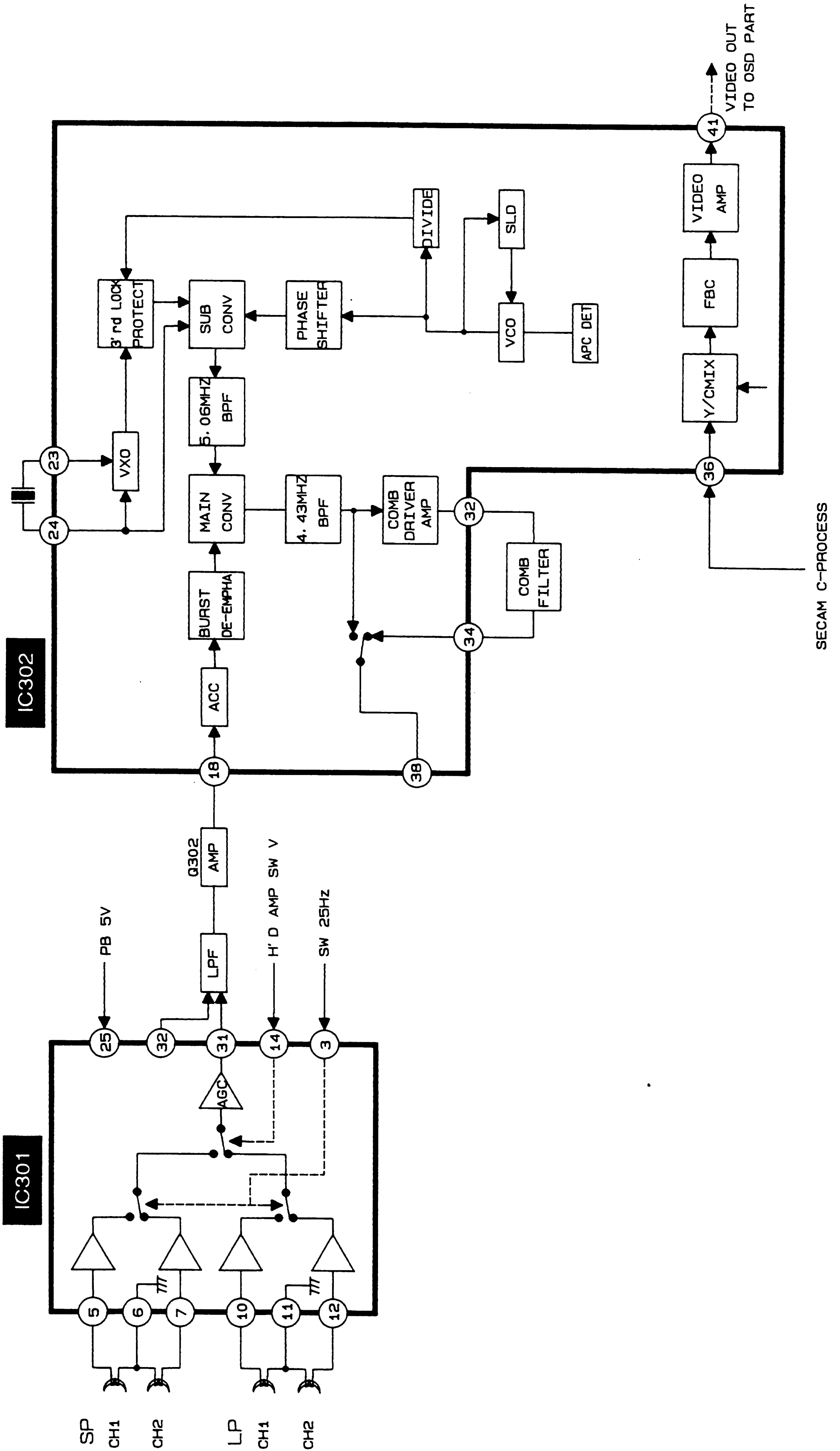
7-10. Luminance Playback Process


IC301
IC302
IC303
CCD
4
6
5
6
LPF
MAIN DEEMPA
SUB-LPF
FM DEMOD
DOUBLE LIMIT
46
PBEQ
Q305
Q306
HPF
AGC
PB 5V
H' D AMP SW V
SW 25Hz
25
32
31
14
3
5
6
7
10
11
12
SP
CH1
CH2
LP
CH1
CH2
7
CLAMP
3.5MHZ LPF
CLAMP
12
14
VCA
CLAMP
CORR
LIM
K
DOC
+
-
+
-
NL DE-EMP
WHP NOISE CAN
PICTURE CTL
Y/C MIX
FBC
AMP
15
36
41
VIDEO OUT

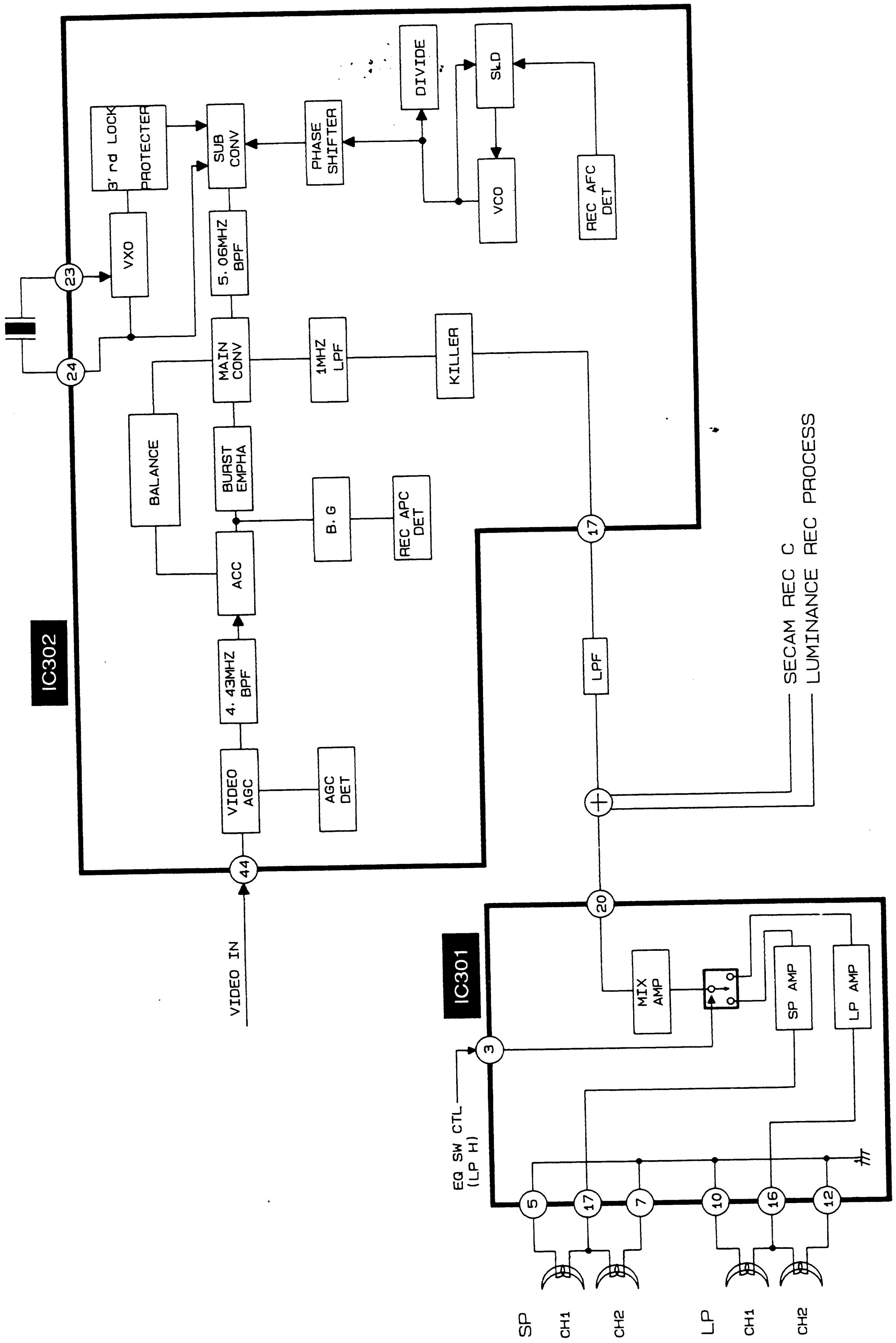
7-11. Luminance Record Process


VIDEO IN
1
IC302
44
AGC
AGC DET
3. 5MHZ 1 PF
CLAMP
14
12
LPF
CLAMP
DETAIL ENH
NL EMPHA
MAIN EMPHA
FM MOD
1/2fH SHIFT
K
CORR
LIM
CLAMP
VCA
6
7
47
48
49
IC303
CCD
6
4
REC EQ HPF
BUFFER
PAL COLOR PROCESS
SECAM COLOR PROCESS
IC301
20
2
EQ SW (LP H)
MIX AMP
SP AMP
LP AMP
5
17
7
10
16
12
SP
CH1
CH2
LP
CH1
CH2

7-12. Chrominance Playback Process


VIDEO OUT
TO OSD PART
41
VIDEO AMP
FBC
Y/CMIX
36
SECAM C-PROCESS
DIVIDE
SLD
VCO
APC DET
PHASE SHIFTER
3'rd LOCK PROTECT
SUB CONV
5.06MHZ BPF
MAIN CONV
4.43MHZ BPF
COMB DRIVER AMP
32
COMB FILTER
34
BURST DE-EMPHA
ACC
VXO
23
24
18
38
IC302
Q302
AMP
LPF
PB 5V
H'D AMP SW V
SW 25Hz
25
32
31
14
3
AGC
IC301
5
6
7
10
11
12
SP
CH1
CH2
LP
CH1
CH2

7-13. Chrominance Record Process


IC302
VIDEO IN
44
VIDEO AGC
AGC DET
4. 43MHZ BPF
ACC
BALANCE
BURST EMPHA
B. G
REC APC DET
MAIN CONV
1MHZ LPF
KILLER
5. 06MHZ BPF
24
23
VXO
3'rd LOCK PROTECTER
SUB CONV
PHASE SHIFTER
DIVIDE
SLD
VCO
REC AFC DET
17
LPF
SECAM REC C
LUMINANCE REC PROCESS
20
IC301
MIX AMP
SP AMP
LP AMP
3
EQ SW CTL (LP H)
5
17
7
10
16
12
SP
CH1
CH2
LP
CH1
CH2

8. CIRCUIT BOARDS

Page

8-1. Regulator ------------------------ 8-2

8-2. Hi-Fi ---------------------------- 8-2

8-3. Pre-Amp -------------------------- 8-3

8-4. O.S.P ---------------------------- 8-3

8-5. I/O ------------------------------ 8-4

8-6. VIF-PACK ------------------------- 8-4

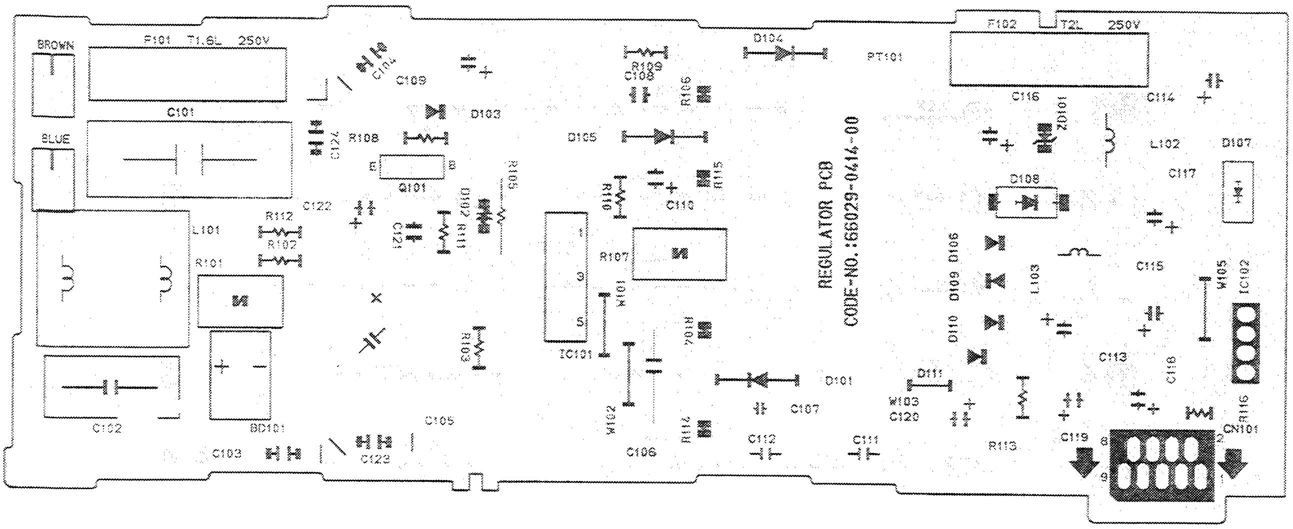
8-7. Main ----------------------------- 8-5

8-8. TOP (Top Side) ------------------- 8-6

8-9. TOP (Bottom Side) ---------------- 8-6

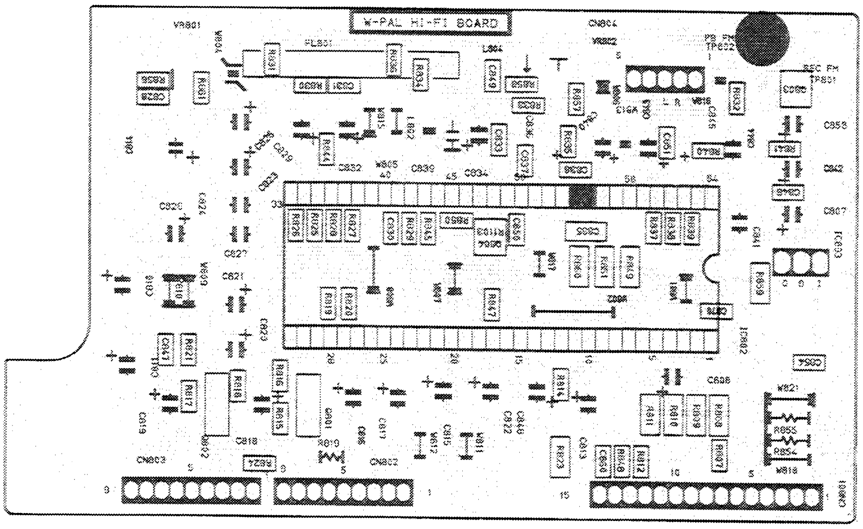
8-10. Timer --------------------------- 8-6

8-1. Regulator


BROWN
BLUE
F101 T1.6L 250V
C101
C102
C103
C104
C109
D103
R108
C124
Q101
E
B
C122
R112
R102
R101
L101
BD101
C121
R111
D102
R105
R103
C105
C123
IC101
1
3
5
R107
W101
W102
R110
C110
R109
C108
R106
R115
D105
D104
R102
R114
C106
PT101
REGULATOR PCB
CODE-NO.:66029-0414-00
D101
C107
C112
C111
D111
W103
C120
R113
F102 T2L 250V
C116
C114
ZD101
L102
D107
C117
D108
D106
D109
D110
L103
C115
W105
IC102
C113
C118
C119
R116
CN101
8
9
2
1

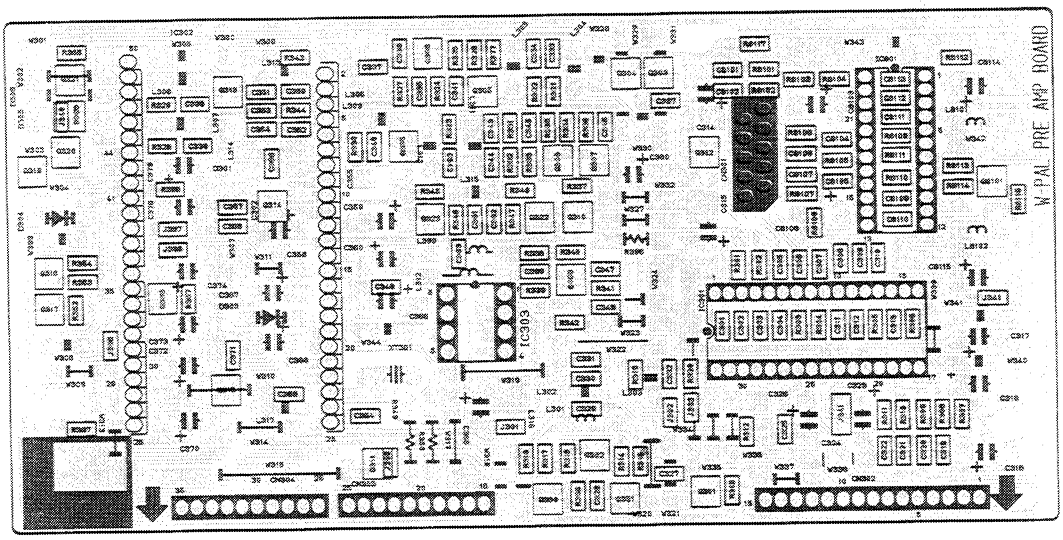
8-2. Hi-Fi

□ : CHIP Parts


W-PAL HI-FI BOARD
VR801
FL801
CN804
PB FM TP802
REC FM TP801
C853
C842
C807
IC803
C821
C827
IC802
W821
R855
R854
W818
CN803
CN802
CN801

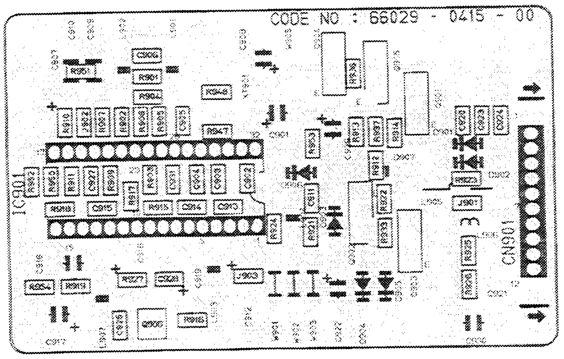
8-3. Pre-Amp

☐ : CHIP Parts

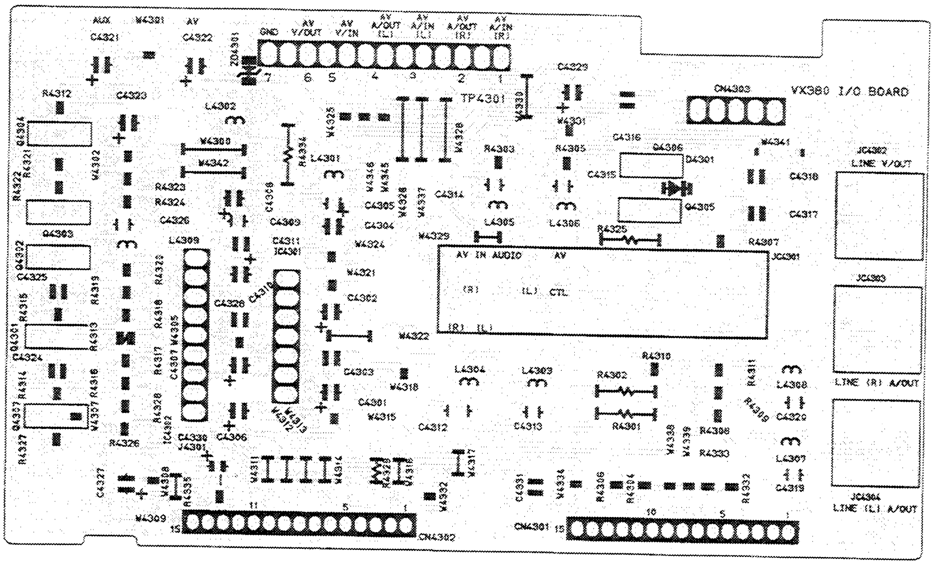

W PAL PRE AMP BOARD
IC303
CN304
CN303
CN302

8-4. O.S.P

☐ : CHIP Parts

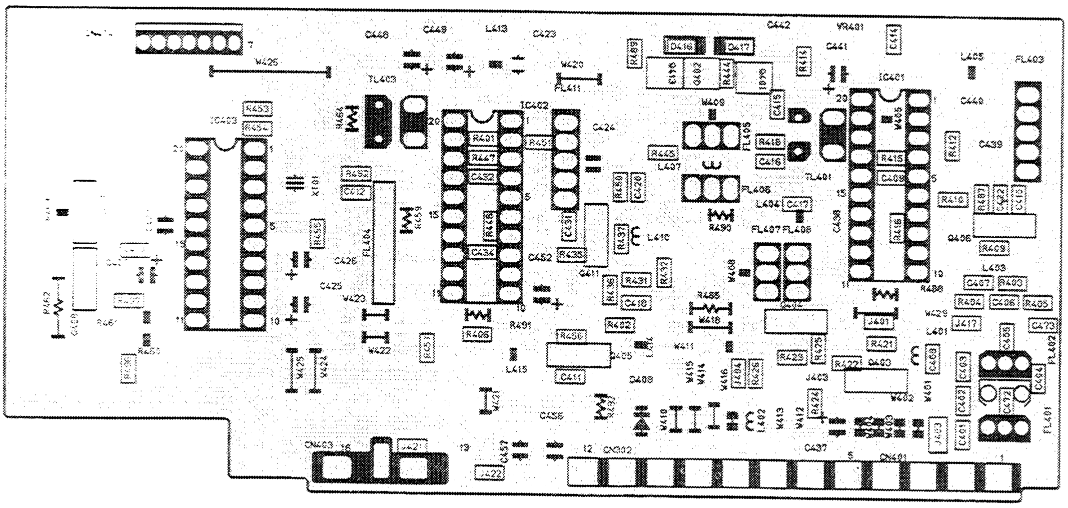

CODE NO : 66029 - 0415 - 00
IC901
CN901

8-5. I/O


VX380 I/O BOARD
AUX
W4301
AV
C4321
C4322
GND
AV V/OUT
AV V/IN
AV A/OUT (L)
AV A/IN (L)
AV A/OUT (R)
AV A/IN (R)
7
6
5
4
3
2
1
TP4301
C4329
CN4303
JC4302
LINE V/OUT
JC4301
JC4303
LINE (R) A/OUT
JC4304
LINE (L) A/OUT
AV IN AUDIO
AV
(R)
(L)
CTL
CN4302
CN4301
15
11
10
5
1
W4309

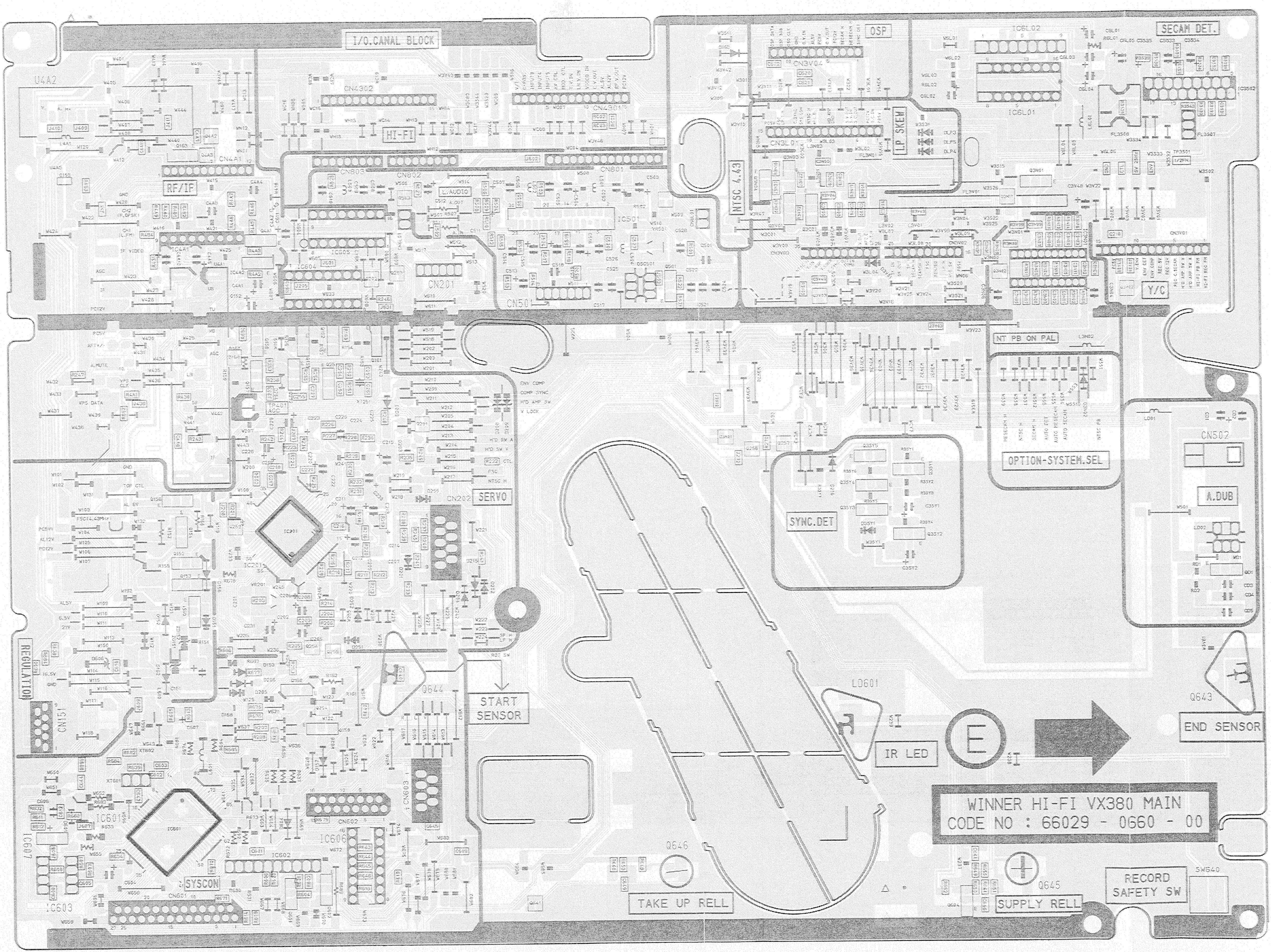
8-6. VIF-PACK

☐ : CHIP Parts


IC401
IC402
IC403
VR401
TL403
FL401
FL402
FL403
FL404
FL405
FL406
FL407
FL408
CN401
CN402
CN403
X101
16
13
12
5
1

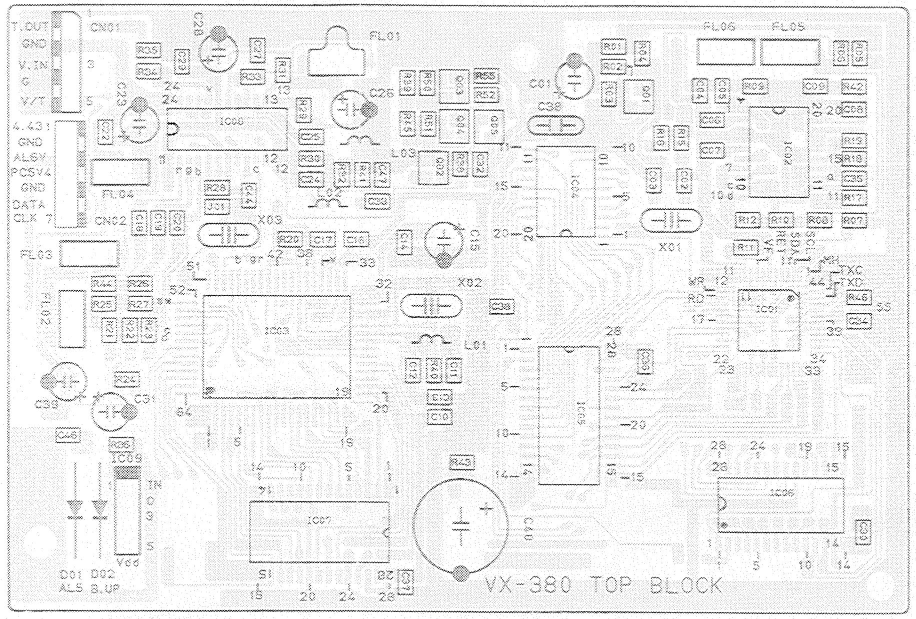
8-7. Main

☐ : CHIP Parts

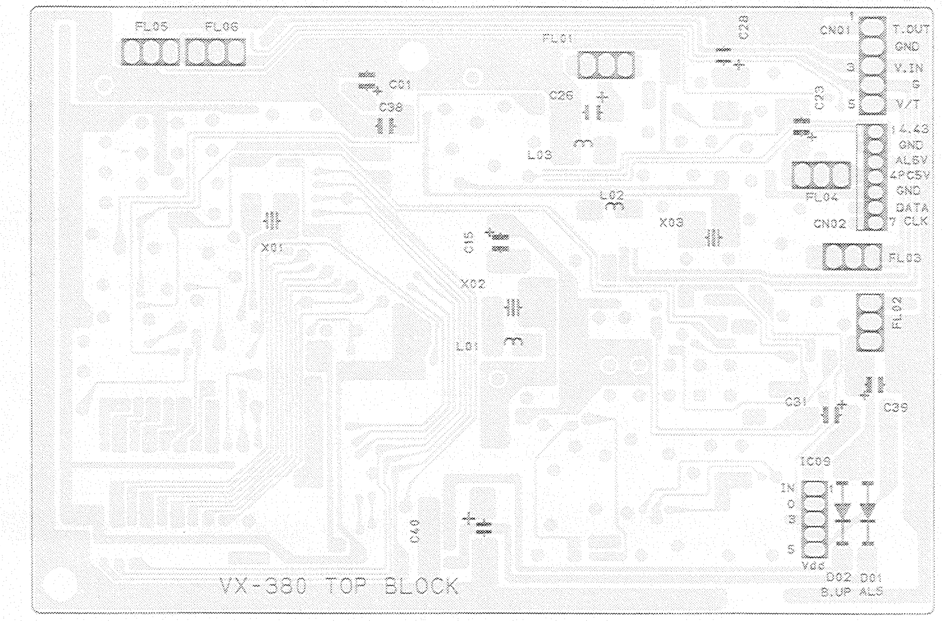

I/O.CANAL BLOCK
OSP
SECAM DET.
U4A2
RF/IF
HI-FI
CN4302
CN4301
CN4A1
CN803
CN802
CN801
L.AUDIO
IC501
CN201
CN501
LP SKEW
NTSC 4.43
CN3V04
CN3L01
IC6L02
IC6L01
CN3V01
Y/C
NT PB ON PAL
OPTION-SYSTEM.SEL
SYNC.DET
CN502
A.DUB
SERVO
IC201
CN202
START SENSOR
REGULATION
CN151
Q644
LD601
IR LED
E
Q643
END SENSOR
WINNER HI-FI VX380 MAIN
CODE NO : 66029 - 0660 - 00
IC601
IC603
IC607
SYSCON
CN601
IC602
CN602
CN603
IC606
Q646
TAKE UP RELL
Q645
SUPPLY RELL
RECORD SAFETY SW
SW640

8-8. TOP (Top Side)

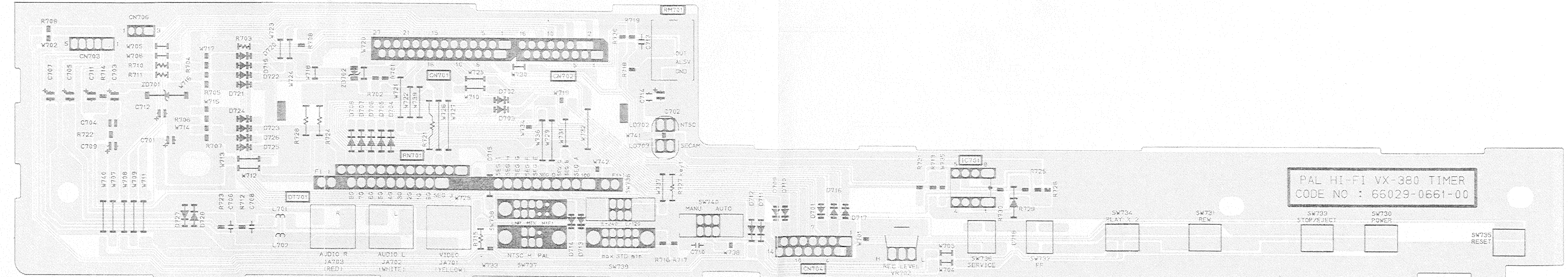
□ : CHIP Parts


CN01
T.OUT
GND
V.IN
G
V/T
4.43
GND
AL6V
PC5V4
GND
DATA
CLK
CN02
FL01
FL02
FL03
FL04
FL05
FL06
IC01
IC02
IC03
IC04
IC05
IC06
IC07
IC08
IC09
X01
X02
X03
L01
L02
L03
D01
D02
ALS
B.UP
VX-380 TOP BLOCK

8-9. TOP (Bottom Side)


FL05
FL06
FL01
C28
CN01
T.OUT
GND
V.IN
G
V/T
14.43
GND
AL6V
4PC5V
GND
DATA
7 CLK
CN02
FL04
FL03
FL02
C01
C38
C26
C23
L03
L02
X03
X01
C15
X02
L01
C31
C39
IC09
C40
D02
D01
B.UP
ALS
VX-380 TOP BLOCK

8-10. Timer


CN706
CN703
CN701
CN702
CN704
RM701
IC701
AUDIO R
JA703
(RED)
AUDIO L
JA702
(WHITE)
VIDEO
JA701
(YELLOW)
NTSC
SECAM
SW740
MANU
AUTO
REC LEVEL
VR702
SW734
PLAY X2
SW731
REW
SW733
STOP/EJECT
SW730
POWER
SW735
RESET
SW736
SERVICE
SW732
FF
SW737
SW739
PAL HI-FI VX-380 TIMER
CODE NO : 66029-0661-00

9. SCHEMATIC DIAGRAMS

Page

9-1. Regulator ------------------------ 9-2

9-2. Power --------------------------- 9-3

9-3. System Control -------------------- 9-4

9-4. Servo --------------------------- 9-6

9-5. Y/C - 1 (Pre-Amp) ------------------ 9-8

9-6. Y/C - 2 -------------------------- 9-10

9-7. Hi-Fi Audio ----------------------- 9-12

9-8. Linear Audio ---------------------- 9-14

9-9. Tuner --------------------------- 9-16

9-10. VIF-PACK ----------------------- 9-17

9-11. I/O (SUB PCB) -------------------- 9-18

9-12. I/O (MAIN PCB) ------------------ 9-19

9-13. O.S.P --------------------------- 9-20

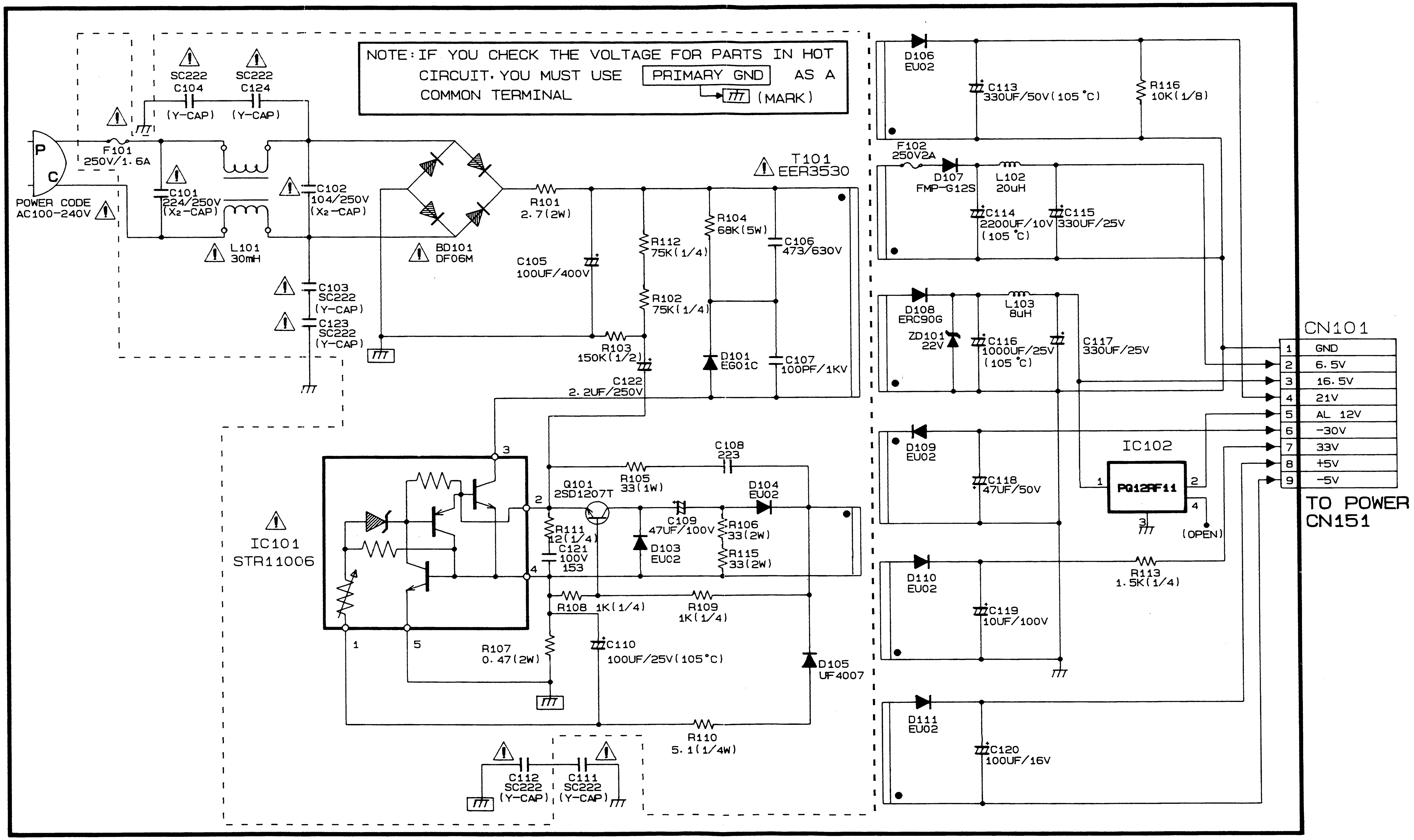
9-14. T.O.P --------------------------- 9-22

9-15. Level Meter Drive ----------------- 9-24

9-16. Timer --------------------------- 9-25

9-17. Remote Control ------------------- 9-26

9-1. Regulator

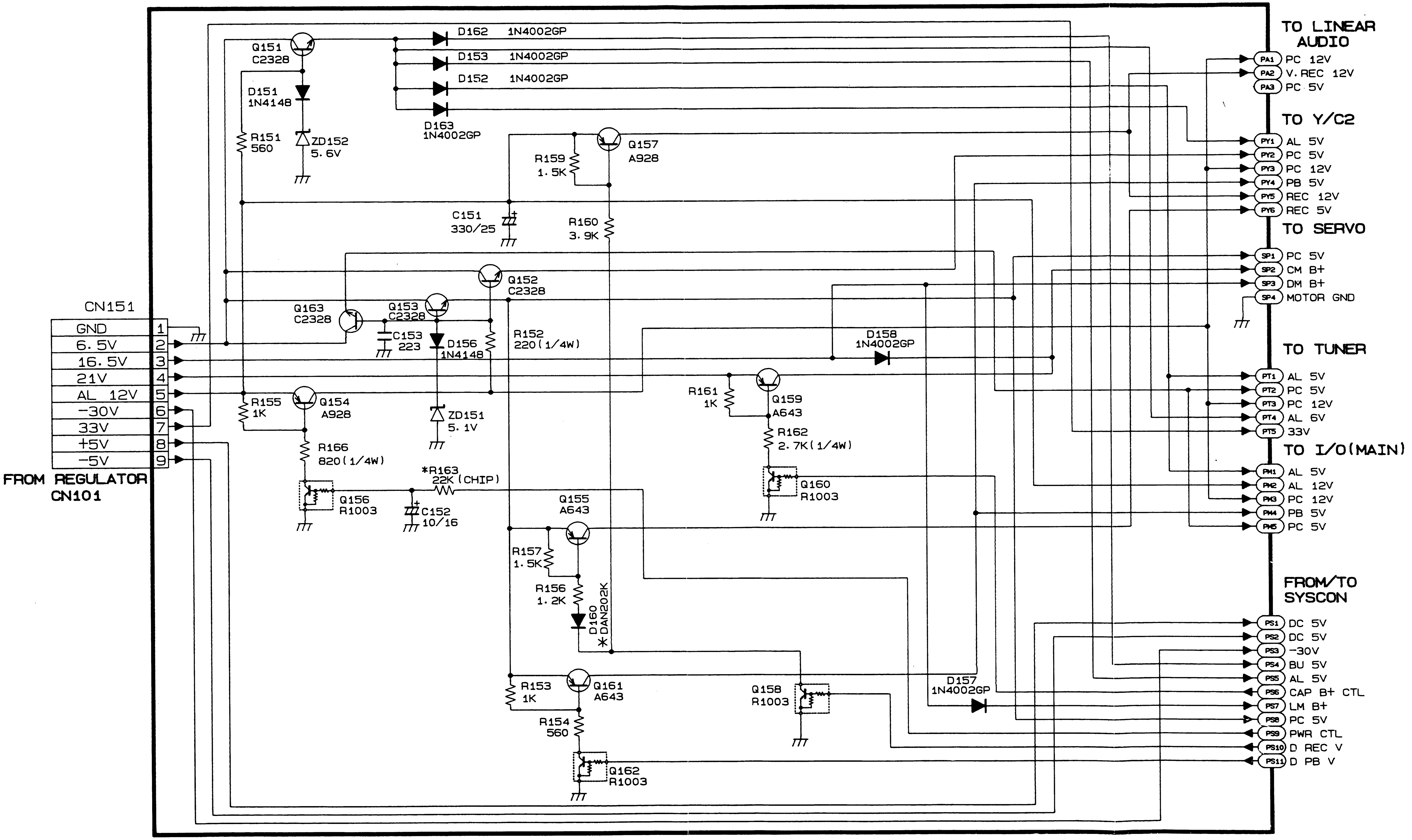

NOTE: IF YOU CHECK THE VOLTAGE FOR PARTS IN HOT CIRCUIT, YOU MUST USE PRIMARY GND AS A COMMON TERMINAL (MARK)
SC222 C104 (Y-CAP)
SC222 C124 (Y-CAP)
F101 250V/1.6A
P
C
POWER CODE AC100-240V
C101 224/250V (X2-CAP)
L101 30mH
C102 104/250V (X2-CAP)
C103 SC222 (Y-CAP)
C123 SC222 (Y-CAP)
BD101 DF06M
R101 2.7(2W)
C105 100UF/400V
R112 75K(1/4)
R102 75K(1/4)
R103 150K(1/2)
C122 2.2UF/250V
R104 68K(5W)
C106 473/630V
D101 EG01C
C107 100PF/1KV
T101 EER3530
IC101 STR11006
3
2
4
1
5
Q101 2SD1207T
R105 33(1W)
C108 223
D104 EU02
R111 12(1/4)
C121 100V 153
C109 47UF/100V
D103 EU02
R106 33(2W)
R115 33(2W)
R108 1K(1/4)
R109 1K(1/4)
R107 0.47(2W)
C110 100UF/25V(105°C)
D105 UF4007
R110 5.1(1/4W)
C112 SC222 (Y-CAP)
C111 SC222 (Y-CAP)
D106 EU02
C113 330UF/50V(105°C)
R116 10K(1/8)
F102 250V2A
D107 FMP-G12S
L102 20uH
C114 2200UF/10V (105°C)
C115 330UF/25V
D108 ERC90G
ZD101 22V
L103 8uH
C116 1000UF/25V (105°C)
C117 330UF/25V
D109 EU02
C118 47UF/50V
IC102
PQ12RF11
1
2
3
4
(OPEN)
D110 EU02
C119 10UF/100V
R113 1.5K(1/4)
D111 EU02
C120 100UF/16V
CN101
1 GND
2 6.5V
3 16.5V
4 21V
5 AL 12V
6 -30V
7 33V
8 +5V
9 -5V
TO POWER CN151

SPECIAL NOTE
All integrated circuits and many other semiconductor devices are elecrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

IMPORTANT SAFETY NOTICES
Components identified with the mark ⚠ have the special charateristics for safety when replacing any of these components. Use only the same type.

9-2. Power



Q151
C2328
D162 1N4002GP
D153 1N4002GP
D152 1N4002GP
D163
1N4002GP
D151
1N4148
R151
560
ZD152
5.6V
Q157
A928
R159
1.5K
C151
330/25
R160
3.9K
Q152
C2328
Q163
C2328
Q153
C2328
C153
223
D156
1N4148
R152
220(1/4W)
D158
1N4002GP
R161
1K
Q159
A643
R162
2.7K(1/4W)
Q160
R1003
R155
1K
Q154
A928
ZD151
5.1V
R166
820(1/4W)
*R163
22K(CHIP)
Q156
R1003
C152
10/16
Q155
A643
R157
1.5K
R156
1.2K
D160
*DAN202K
R153
1K
Q161
A643
R154
560
Q162
R1003
Q158
R1003
D157
1N4002GP
CN151
GND 1
6.5V 2
16.5V 3
21V 4
AL 12V 5
-30V 6
33V 7
+5V 8
-5V 9
FROM REGULATOR
CN101
TO LINEAR AUDIO
PA1 PC 12V
PA2 V.REC 12V
PA3 PC 5V
TO Y/C2
PY1 AL 5V
PY2 PC 5V
PY3 PC 12V
PY4 PB 5V
PY5 REC 12V
PY6 REC 5V
TO SERVO
SP1 PC 5V
SP2 CM B+
SP3 DM B+
SP4 MOTOR GND
TO TUNER
PT1 AL 5V
PT2 PC 5V
PT3 PC 12V
PT4 AL 6V
PT5 33V
TO I/O(MAIN)
PM1 AL 5V
PM2 AL 12V
PM3 PC 12V
PM4 PB 5V
PM5 PC 5V
FROM/TO SYSCON
PS1 DC 5V
PS2 DC 5V
PS3 -30V
PS4 BU 5V
PS5 AL 5V
PS6 CAP B+ CTL
PS7 LM B+
PS8 PC 5V
PS9 PWR CTL
PS10 D REC V
PS11 D PB V

SPECIAL NOTE
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NOTE
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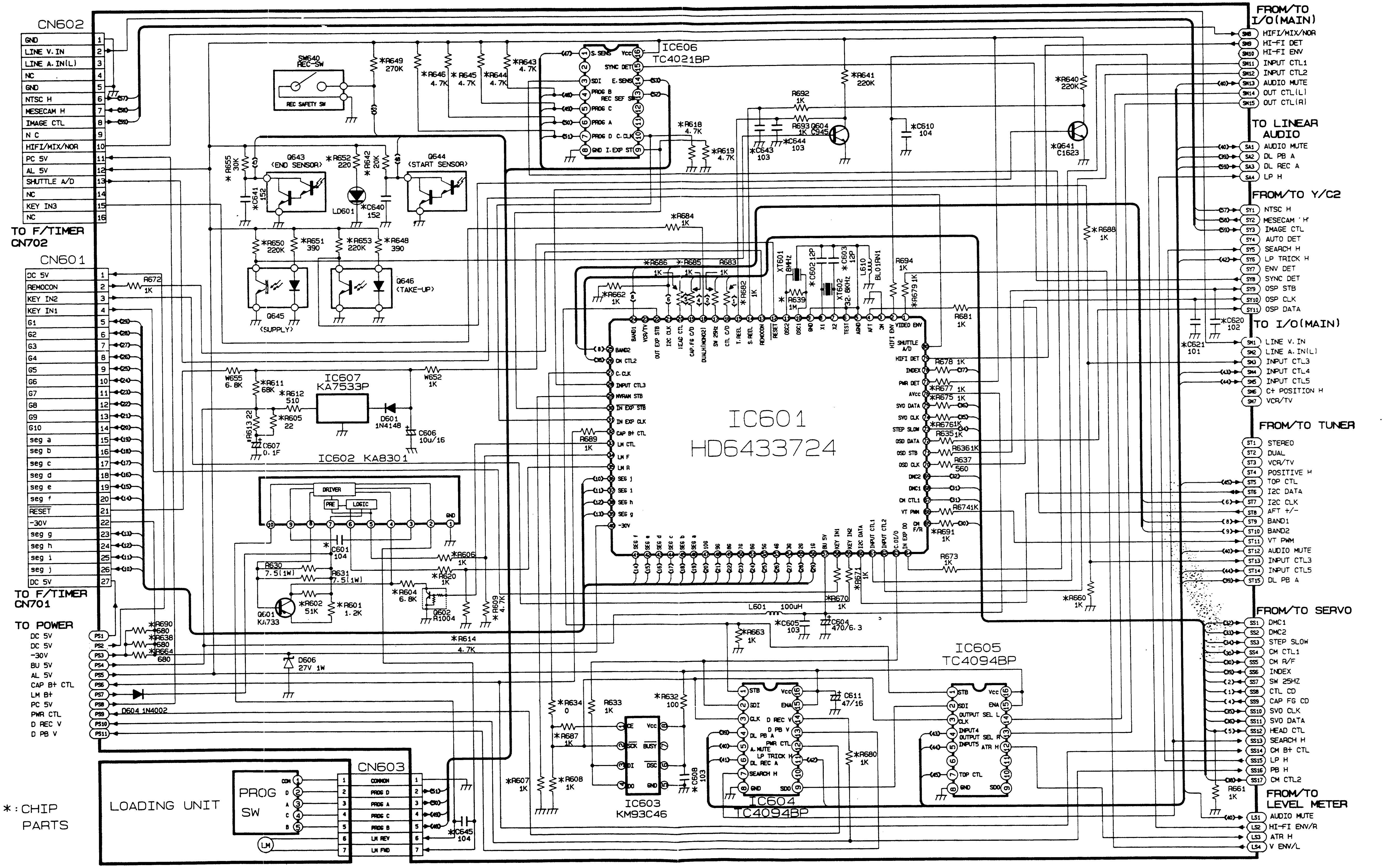
9-3. System Control


CN602
TO F/TIMER CN702
CN601
TO F/TIMER CN701
TO POWER
DC 5V
DC 5V
-30V
BU 5V
AL 5V
CAP B+ CTL
LM B+
PC 5V
PWR CTL
D REC V
D PB V
IC601 HD6433724
IC602 KA8301
IC603 KM93C46
IC604 TC4094BP
IC605 TC4094BP
IC606 TC4021BP
IC607 KA7533P
SW640 REC-SW
Q643 (END SENSOR)
Q644 (START SENSOR)
Q645 (SUPPLY)
Q646 (TAKE-UP)
LOADING UNIT
PROG SW
CN603
FROM/TO I/O(MAIN)
TO LINEAR AUDIO
FROM/TO Y/C2
TO I/O(MAIN)
FROM/TO TUNER
FROM/TO SERVO
FROM/TO LEVEL METER
*: CHIP PARTS

SPECIAL NOTE
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NOTE
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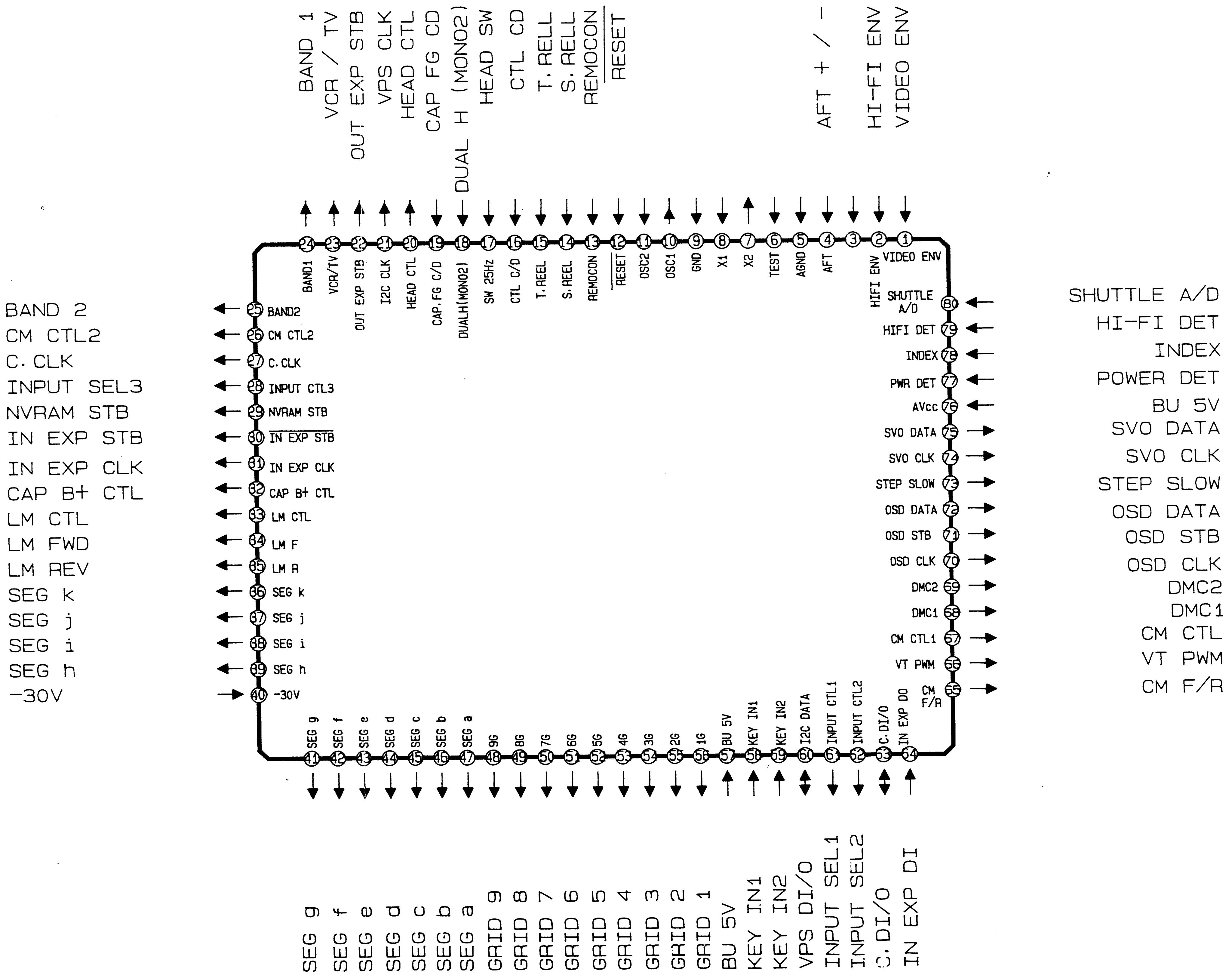
IC601

MODE / PIN NO	STOP	REC	PLAY	MODE / PIN NO	STOP	REC	PLAY
1	0	0	1.1~3.8	41	-28	-28	-28
2	-	-	-	42	-28	-28	-28
3	0	0	0	43	-28	-28	-28
4	0~4.8	0~4.8	0~4.8	44	-28	-28	-28
5	0	0	0	45	-28	-28	-28
6	0	0	0	46	-28	-28	-28
7	0.3~2.4	0~2.3	0~2.3	47	-28	-28	-28
8	0.8	0.8	0.8	48	-28	-28	-28
9	0	0	0	49	-28	-28	-28
10	0.4~4.4	0.4~4.4	0.4~4.4	50	-28	-28	-28
11	0~5.0	0~5.0	0~5.0	51	-28	-28	-28
12	5.0	5.0	5.0	52	-28	-28	-28
13	5.0	5.0	5.0	53	-28	-28	-28
14	0/4.9	0~4.9	0~4.9	54	-28	-28	-28
15	0/4.9	0~4.9	0~4.9	55	4.6~-28	4.6~-28	4.6~-28
16	0/5	5.0	0~5.0	56	4.7~-28	4.7~-28	4.7~-28
17	0.5	0~5.0	0~5.0	57	5.0	5.0	5.0
18	5.0	5.0	5.0	58	0/4.3	0/4.3	0/4.3
19	0/5	0~5.0	0~5.0	59	0/4.3	0/4.3	0/4.3
20	0.5	0.5	0.5	60	5.0	5.0	5.0
21	0	0	0	61	0/5	0/5	0/5
22	0~4.8	0~4.8	0~4.8	62	0/5	0/5	0/5
23	0.6/4.9	0.6/4.9	0.6/4.9	63	0~5.0	0~5.0	0~5.0
24	0/4.9	0/4.9	0/4.9	64	0~5.0	0~5.0	0~5.0
25	0/4.9	0/4.9	0/4.9	65	4.9	4.9	4.9
26	4.9	4.9	4.9	66	0~4.9	0~4.9	0~4.9
27	0~5.0	0~5.0	0~5.0	67	0.1	4.6	4.6
28	0/4.6	0/4.6	0/4.6	68	1.2	1.4	1.4
29	0	0	0	69	1.2	1.4	1.4
30	4.9~0	4.9~0	4.9~0	70	4.9~0	4.9~0	4.9~0
31	0/5.0	0/5.0	0/5.0	71	4.9~0	4.9~0	4.9~0
32	0	0	0	72	0~5.0	0~5.0	0~5.0
33	4.8	4.8	4.8	73	0	0	0
34	4.7	4.7	4.7	74	0~5.0	0~5.0	0~5.0
35	4.7	4.7	4.7	75	0~5.0	0~5.0	0~5.0
36	4.8/-28	4.8/-28	4.8/-28	76	5.0	5.0	5.0
37	4.8/-28	4.8/-28	4.8/-28	77	5.0	5.0	5.0
38	4.8/-28	4.8/-28	4.8/-28	78	5.0	5.0	5.0
39	4.8/-28	4.8/-28	4.8/-28	79	5.0	5.0	5.0
40	-28	-28	-28	80	2.5	2.5	2.5

IC601 HD6433724


BAND 1
VCR / TV
OUT EXP STB
VPS CLK
HEAD CTL
CAP FG CD
DUAL H (MONO2)
HEAD SW
CTL CD
T.RELL
S.RELL
REMOCON
RESET
AFT + / -
HI-FI ENV
VIDEO ENV
BAND1
VCR/TV
OUT EXP STB
I2C CLK
HEAD CTL
CAP.FG C/D
DUALH(MONO2)
SW 25Hz
CTL C/D
T.REEL
S.REEL
REMOCON
RESET
OSC2
OSC1
GND
X1
X2
TEST
AGND
AFT
HIFI ENV
VIDEO ENV
BAND 2
CM CTL2
C. CLK
INPUT SEL3
NVRAM STB
IN EXP STB
IN EXP CLK
CAP B+ CTL
LM CTL
LM FWD
LM REV
SEG k
SEG j
SEG i
SEG h
-30V
BAND2
CM CTL2
C.CLK
INPUT CTL3
NVRAM STB
IN EXP STB
IN EXP CLK
CAP B+ CTL
LM CTL
LM F
LM R
SEG k
SEG j
SEG i
SEG h
-30V
SHUTTLE A/D
HIFI DET
INDEX
PWR DET
AVcc
SVO DATA
SVO CLK
STEP SLOW
OSD DATA
OSD STB
OSD CLK
DMC2
DMC1
CM CTL1
VT PWM
CM F/R
SHUTTLE A/D
HI-FI DET
INDEX
POWER DET
BU 5V
SVO DATA
SVO CLK
STEP SLOW
OSD DATA
OSD STB
OSD CLK
DMC2
DMC1
CM CTL
VT PWM
CM F/R
SEG g
SEG f
SEG e
SEG d
SEG c
SEG b
SEG a
G9
G8
G7
G6
G5
G4
G3
G2
G1
BU 5V
KEY IN1
KEY IN2
I2C DATA
INPUT CTL1
INPUT CTL2
C.DI/O
IN EXP DO
SEG g
SEG f
SEG e
SEG d
SEG c
SEG b
SEG a
GRID 9
GRID 8
GRID 7
GRID 6
GRID 5
GRID 4
GRID 3
GRID 2
GRID 1
BU 5V
KEY IN1
KEY IN2
VPS DI/O
INPUT SEL1
INPUT SEL2
C.DI/O
IN EXP DI
1
2
3
4
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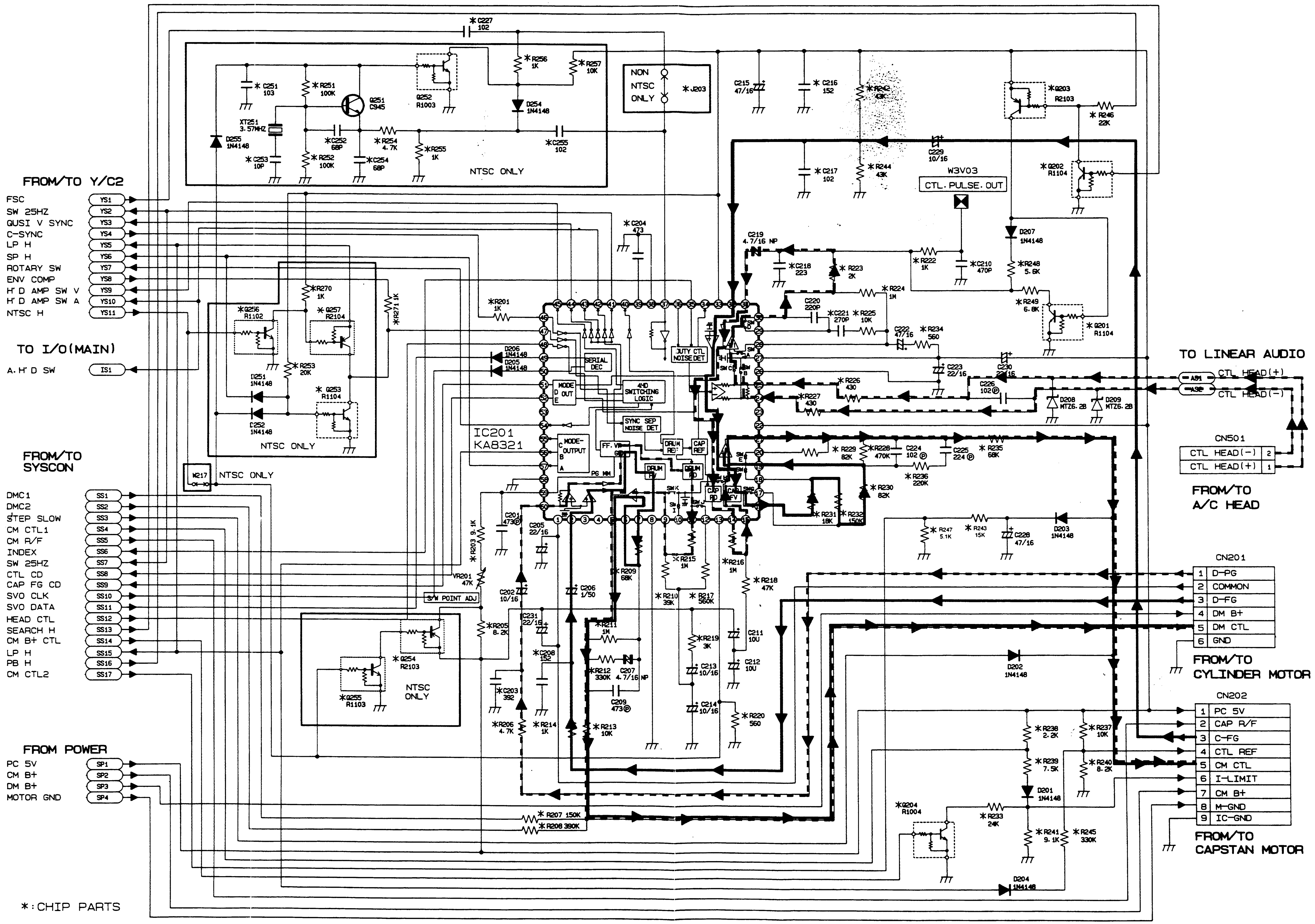
9-4. Servo

RED	———— CYLINDER SPEED CTL	BLUE	———— CAPSTAN SPEED CTL
	- - - - - - CYLINDER PHASE CTL		- - - - - - CAPSTAN PHASE CTL


FROM/TO Y/C2
FSC YS1
SW 25HZ YS2
QUSI V SYNC YS3
C-SYNC YS4
LP H YS5
SP H YS6
ROTARY SW YS7
ENV COMP YS8
H'D AMP SW V YS9
H'D AMP SW A YS10
NTSC H YS11
TO I/O(MAIN)
A.H'D SW IS1
FROM/TO SYSCON
DMC1 SS1
DMC2 SS2
STEP SLOW SS3
CM CTL1 SS4
CM R/F SS5
INDEX SS6
SW 25HZ SS7
CTL CD SS8
CAP FG CD SS9
SVO CLK SS10
SVO DATA SS11
HEAD CTL SS12
SEARCH H SS13
CM B+ CTL SS14
LP H SS15
PB H SS16
CM CTL2 SS17
FROM POWER
PC 5V SP1
CM B+ SP2
DM B+ SP3
MOTOR GND SP4
*:CHIP PARTS
NTSC ONLY
NON NTSC ONLY *J203
IC201 KA8321
W3V03 CTL.PULSE.OUT
TO LINEAR AUDIO
AS1 CTL HEAD(+)
AS2 CTL HEAD(−)
CN501
CTL HEAD(−) 2
CTL HEAD(+) 1
FROM/TO A/C HEAD
CN201
1 D-PG
2 COMMON
3 D-FG
4 DM B+
5 DM CTL
6 GND
FROM/TO CYLINDER MOTOR
CN202
1 PC 5V
2 CAP R/F
3 C-FG
4 CTL REF
5 CM CTL
6 I-LIMIT
7 CM B+
8 M-GND
9 IC-GND
FROM/TO CAPSTAN MOTOR
SERIAL DEC
MODE D OUT E
4ND SWITCHING LOGIC
SYNC SEP NOISE DET
DUTY CTL NOISE DET
MODE-C OUTPUT B A
FF.VIB
DRUM REF
CAP REF
DRUM FV
DRUM PD
CAP PD
CAP FV
PG MM
S/W POINT ADJ
VR201 47K
XT251 3.57MHZ
*C227 102
*C251 103
*R251 100K
Q251 C945
Q252 R1003
*R256 1K
*R257 10K
D254 1N4148
D255 1N4148
*C252 68P
*R254 4.7K
*R255 1K
*C255 102
*C253 10P
*R252 100K
*C254 68P
C215 47/16
*C216 152
*R242 43K
*C217 102
*R244 43K
C229 10/16
*Q203 R2103
*R246 22K
*Q202 R1104
D207 1N4148
*R248 5.6K
*R249 6.8K
*Q201 R1104
*C204 473
C219 4.7/16 NP
*C218 223
*R223 2K
*R222 1K
*C210 470P
*R224 1M
C220 220P
*C221 270P
*R225 10K
C222 47/16
*R234 560
C223 22/16
C230 22/16
C226 102
D208 MTZ6.2B
D209 MTZ6.2B
*R226 430
*R227 430
*R229 82K
*R228 470K
C224 102
C225 224
*R235 68K
*R236 220K
*R230 82K
*R231 18K
*R232 150K
*R247 5.1K
*R243 15K
C228 47/16
D203 1N4148
*Q256 R1102
*R270 1K
*Q257 R2104
*R271 1K
*R201 1K
D206 1N4148
D205 1N4148
*R253 20K
D251 1N4148
*Q253 R1104
D252 1N4148
W217
*R203 9.1K
C201 473
C205 22/16
C202 10/16
*R205 8.2K
IC231 22/16
*C208 152
*C203 392
*R206 4.7K
*R214 1K
*Q254 R2103
*Q255 R1103
C206 1/50
*R209 68K
*R211 1M
*R212 330K
C207 4.7/16 NP
C209 473
*R213 10K
*R215 1M
*R210 39K
*R217 560K
*R216 1M
*R218 47K
*R219 3K
C211 10U
C213 10/16
C212 10U
C214 10/16
*R220 560
D202 1N4148
*R238 2.2K
*R237 10K
*R239 7.5K
*R240 8.2K
D201 1N4148
*Q204 R1004
*R233 24K
*R241 9.1K
*R245 330K
D204 1N4148
*R207 150K
*R208 390K

NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since this drawing was prepared.

SPECIAL NOTE
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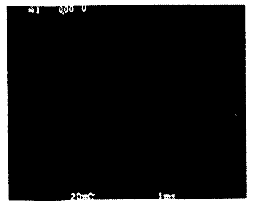
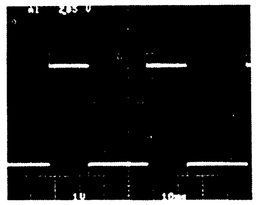
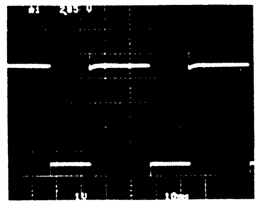
IC201							
MODE / PIN NO	STOP	REC	PLAY	MODE / PIN NO	STOP	REC	PLAY
1	2.5	2.5	2.5	31	2.5	2.5	–
2	2.5	2.5	2.5	32	2.5	–	–
3	2.6	2.6	2.6	33	5.1	5.1	5.1
4	2.6	2.6	2.6	34	0~5	0~5	0~5
5	1.4	1.5	1.5	35	5.0	5.0	5.0
6	2.5	2.5	2.5	36	5.0	5.0	5.0
7	2.5	2.5	2.5	37	–	–	–
8	0	0	0	38	0	0	0
9	2.5	2.5	2.5	39	5.0	5.0	5.0
10	0	0	0	40	0~5	0~5	0~5
11	2.5	2.5	2.5	41	0~5	0~5	0~5
12	2.3	2.3	2.3	42	0~5	5.0	0~5
13	0.1	0.1	0.1	43	5.0	5.0	5.0
14	5.1	2.6	2.6	44	0	0	0
15	2.5	2.5	2.5	45	0	0	0
16	0	2.6	2.6	46	0.3~4.1	0.3~4.1	0.3~4.1
17	0	2.6	2.6	47	5.0	5.0	0.4~5
18	0	2.6	2.6	48	0.4	0.4	0.4
19	0.8	2.5	2.5	49	0.6~5	0.6~5	0.6~5
20	5.1	2.5	2.5	50	0.6~5	0.6~5	0.6~5
21	5.1	2.5	2.5	51	5.0	0~5	0~5
22	5.1	5.1	5.1	52	5.0	5.0	0~5
23	0	0	0	53	0	0	0
24	2.5	–	2.5	54	0~5	0~5	0~5
25	2.5	–	2.5	55	0	0	0
26	0	0	0	56	0	0	0
27	2.5	2.5	2.5	57	5.0	5.0	5.0
28	2.5	2.5	2.5	58	0	0	0
29	2.5	2.5	–	59	–	–	–
30	2.5	2.5	–	60	2.5	2.5	2.5



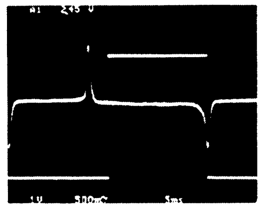
IC201-2
25mVp-p
PB



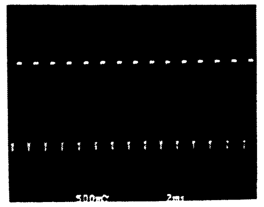
IC201-24
5.4Vp-p
REC



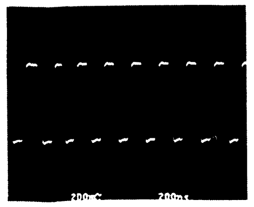
IC201-25
5.4Vp-p
REC



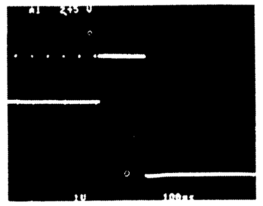
IC201-31
2Vp-p
PB



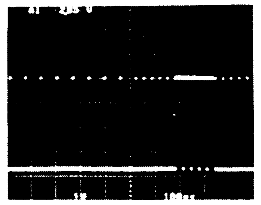
IC201-32
1.8Vp-p
PB



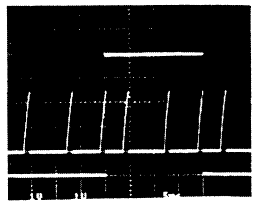
IC201-37
600mVp-p
PB



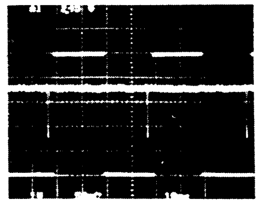
IC201-44
5Vp-p
STILL/SLOW



IC201-46
3.7Vp-p
PB

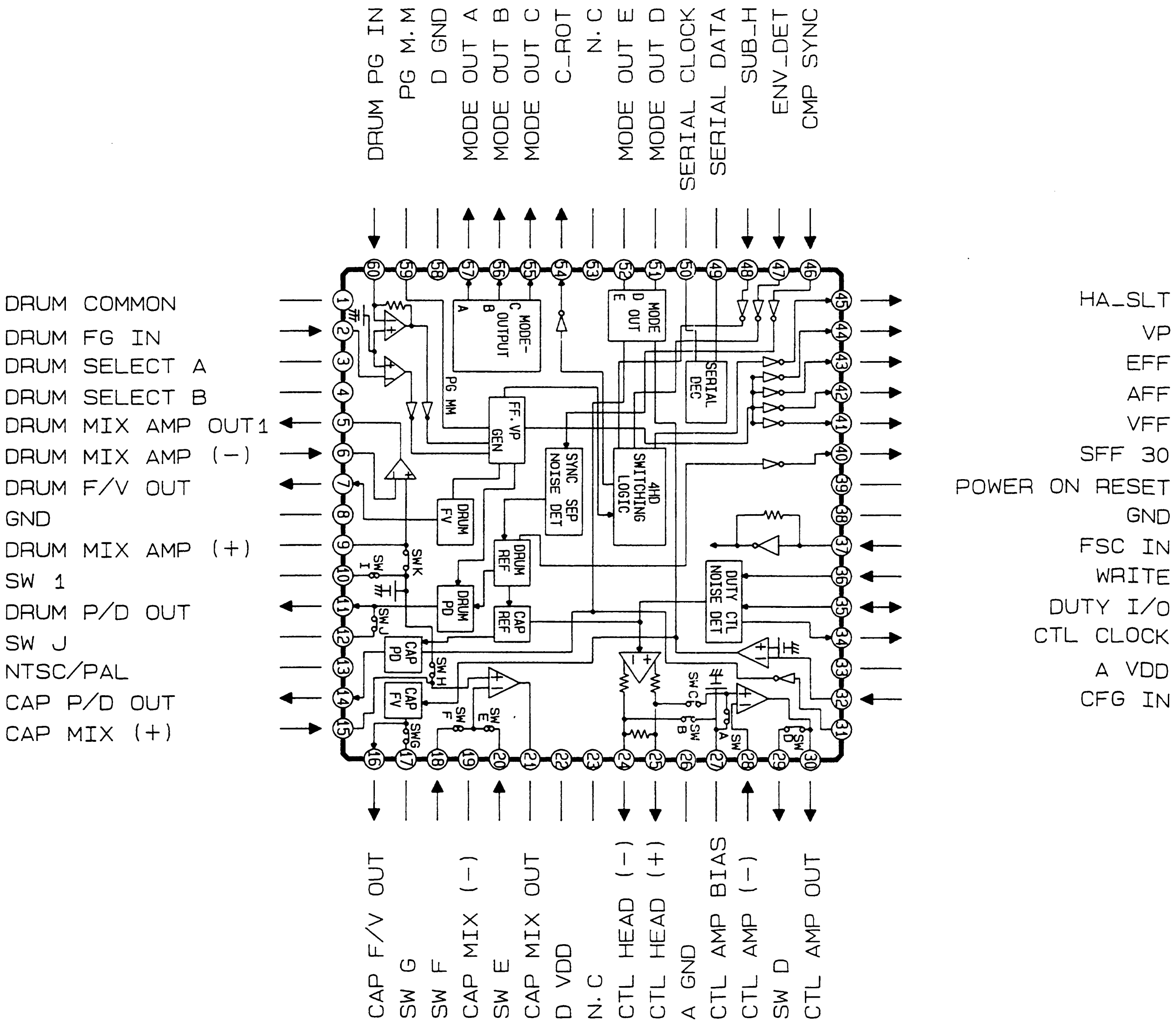


IC201-59
2.5Vp-p
PB



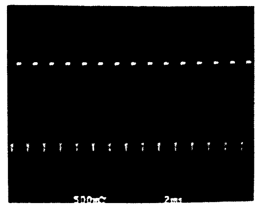
IC201-60
100mVp-p
PB

IC201 KA8321

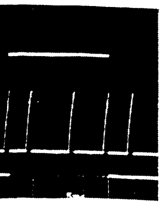

DRUM PG IN
PG M.M
D GND
MODE OUT A
MODE OUT B
MODE OUT C
C_ROT
N.C
MODE OUT E
MODE OUT D
SERIAL CLOCK
SERIAL DATA
SUB_H
ENV_DET
CMP SYNC
DRUM COMMON
DRUM FG IN
DRUM SELECT A
DRUM SELECT B
DRUM MIX AMP OUT1
DRUM MIX AMP (−)
DRUM F/V OUT
GND
DRUM MIX AMP (+)
SW 1
DRUM P/D OUT
SW J
NTSC/PAL
CAP P/D OUT
CAP MIX (+)
HA_SLT
VP
EFF
AFF
VFF
SFF 30
POWER ON RESET
GND
FSC IN
WRITE
DUTY I/O
CTL CLOCK
A VDD
CFG IN
CAP F/V OUT
SW G
SW F
CAP MIX (−)
SW E
CAP MIX OUT
D VDD
N.C
CTL HEAD (−)
CTL HEAD (+)
A GND
CTL AMP BIAS
CTL AMP (−)
SW D
CTL AMP OUT
MODE OUTPUT
PG MM
FF.VP GEN
DRUM FV
SYNC SEP NOISE DET
4HD SWITCHING LOGIC
SERIAL DEC
MODE D OUT E
DRUM REF
DRUM PD
CAP REF
CAP PD
CAP FV
DUTY CTL NOISE DET
SW K
SW I
SW J
SW H
SW G
SW F
SW E
SW A
SW B
SW C
SW D

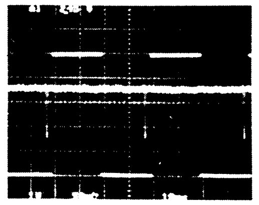
SERVO

PLAY
-
-
5.1
0~5
5.0
5.0
-
0
5.0
0~5
0~5
0~5
5.0
0
0
.3~4.1
.4~5
0.4
.6~5
.6~5
0~5
0~5
0
0~5
0
0
5.0
0
-
2.5



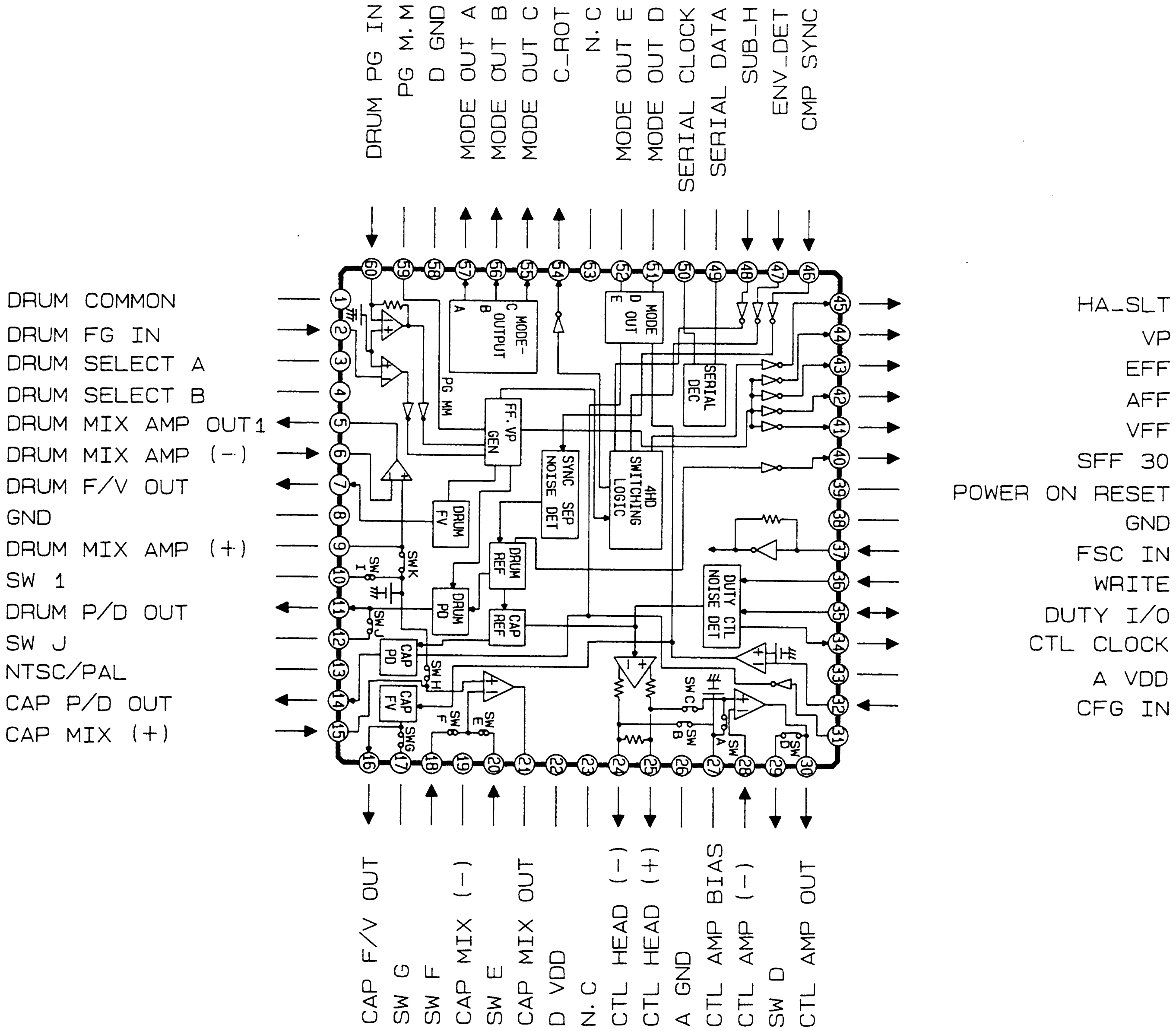
IC201-32
1.8Vp-p
PB





IC201-60
100mVp-p
PB

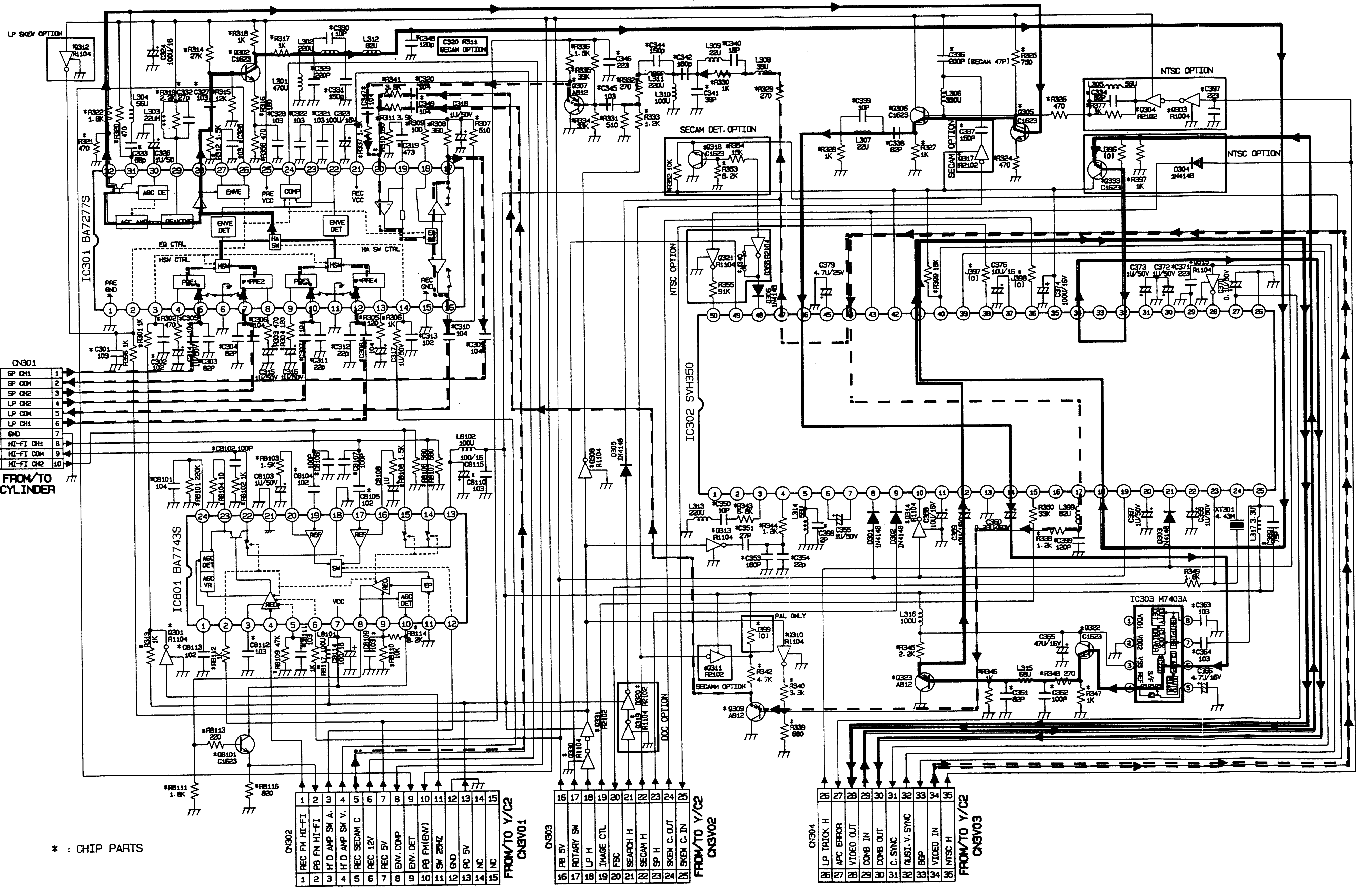
IC201 KA8321


DRUM PG IN
PG M.M
D GND
MODE OUT A
MODE OUT B
MODE OUT C
C_ROT
N.C
MODE OUT E
MODE OUT D
SERIAL CLOCK
SERIAL DATA
SUB_H
ENV_DET
CMP SYNC
DRUM COMMON
DRUM FG IN
DRUM SELECT A
DRUM SELECT B
DRUM MIX AMP OUT1
DRUM MIX AMP (-)
DRUM F/V OUT
GND
DRUM MIX AMP (+)
SW 1
DRUM P/D OUT
SW J
NTSC/PAL
CAP P/D OUT
CAP MIX (+)
HA_SLT
VP
EFF
AFF
VFF
SFF 30
POWER ON RESET
GND
FSC IN
WRITE
DUTY I/O
CTL CLOCK
A VDD
CFG IN
CAP F/V OUT
SW G
SW F
CAP MIX (-)
SW E
CAP MIX OUT
D VDD
N.C
CTL HEAD (-)
CTL HEAD (+)
A GND
CTL AMP BIAS
CTL AMP (-)
SW D
CTL AMP OUT
MODE-OUTPUT
MODE D OUT
SERIAL DEC
PG MM
FF.VP GEN
SYNC SEP NOISE DET
4HD SWITCHING LOGIC
DRUM FV
DRUM REF
DRUM PD
CAP REF
CAP PD
CAP FV
DUTY CTL NOISE DET

-5. Y/C - 1 (Pre-Amp)

RED ———— PB Y PROCESS
- - - - - REC Y PROCESS

BLUE ———— PB C PROCESS
- - - - - REC C PROCESS


LP SKEW OPTION
IC301 BA7277S
AGC DET
ENVE
COMP
ENVE DET
EQ CTRL
HSW CTRL
HA SW CTRL
PRE1
PRE2
PRE3
PRE4
PRE GND
REC GND
PRE VCC
REC VCC
SECAM OPTION
C320 R311 SECAM OPTION
SECAM DET. OPTION
NTSC OPTION
IC302 SVH350
IC303 M7403A
XT301 4.43M
PAL ONLY
SECAM OPTION
DOC OPTION
IC801 BA7743S
AGC DET
AGC VR
REF
SW
VCC
CN301
1 SP CH1
2 SP COM
3 SP CH2
4 LP CH2
5 LP COM
6 LP CH1
7 GND
8 HI-FI CH1
9 HI-FI COM
10 HI-FI CH2
FROM/TO CYLINDER
CN302
1 REC FM HI-FI
2 PB FM HI-FI
3 H/D AMP SW A.
4 H/D AMP SW V.
5 REC SECAM C
6 REC 12V
7 REC 5V
8 ENV. COMP
9 ENV. DET
10 PB FM(ENV)
11 SW 25HZ
12 GND
13 PC 5V
14 NC
15 NC
FROM/TO Y/C2 CN3V01
CN303
16 PB 5V
17 ROTARY SW
18 LP H
19 IMAGE CTL
20 FSC
21 SEARCH H
22 SECAM H
23 SP H
24 SKEW C.OUT
25 SKEW C.IN
FROM/TO Y/C2 CN3V02
CN304
26 LP TRICK H
27 APC ERROR
28 VIDEO OUT
29 COMB IN
30 COMB OUT
31 C.SYNC
32 QUSI. V. SYNC
33 BGP
34 VIDEO IN
35 NTSC H
FROM/TO Y/C2 CN3V03

* : CHIP PARTS

NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

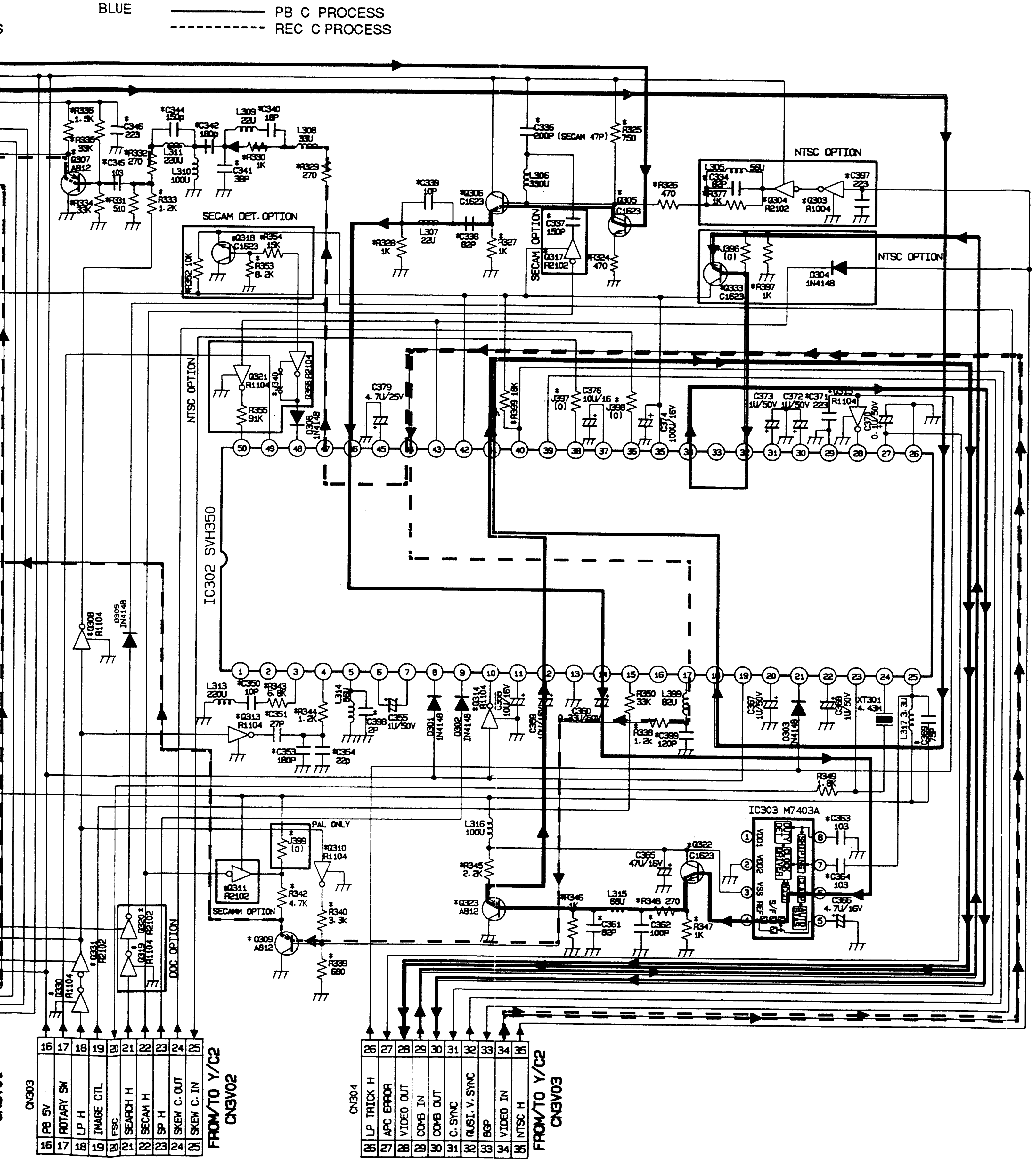
SPECIAL NOTE
All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

IC301

MODE / PIN NO	STOP
1	0
2	0
3	SW 25HZ
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0.2
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0.2
31	0
32	0

IC303

MODE / PIN NO	STOP
1	0
2	0
3	5.0
4	3.5
5	1.9
6	2.0
7	2.55
8	8.25


BLUE
PB C PROCESS
REC C PROCESS
SECAM DET. OPTION
NTSC OPTION
SECAM OPTION
IC302 SVH350
IC303 M7403A
PAL ONLY
DOC OPTION
CN303
PB 5V
ROTARY SW
LP H
IMAGE CTL
FSC
SEARCH H
SECAM H
SP H
SKEW C.OUT
SKEW C.IN
FROM/TO Y/C2 CN3V02
CN304
LP TRICK H
APC ERROR
VIDEO OUT
COMB IN
COMB OUT
C.SYNC
QUSI. V. SYNC
BGP
VIDEO IN
NTSC H
FROM/TO Y/C2 CN3V03

NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

SPECIAL NOTE
All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

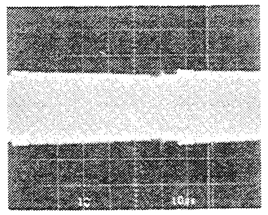
IC301			
MODE / PIN NO	STOP	REC	PLAY
1	0	0	0
2	0	0	0
3	SW 25HZ		
4	0	0	0.8
5	0	0	0.65
6	0	0	0
7	0	0	0.65
8	0	0	0.8
9	0	0	0.8
10	0	0	0.65
11	0	0	0
12	0	0	0.65
13	0	0	0.8
14	0	0	4.45
15	0	0	0
16	0	6.15	0
17	0	6.4	0
18	0	6.1	0
19	0	6.1	0
20	0.2	6.8	0
21	0	12.0	0.35
22	0	0	2.45
23	0	0	2.8
24	0	0	3.9
25	0	0	5.0
26	0	0	3.8
27	0	0	2.8
28	0	0	2.9
29	0	0	5.0
30	0.2	0	3.3
31	0	0	3.45
32	0	0	1.6

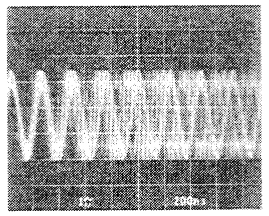
IC302							
MODE / PIN NO	STOP	REC	PLAY	MODE / PIN NO	STOP	REC	PLAY
1	NC	NC	NC	26	0	0	0
2	0	0	0	27	3.25	3.25	3.25
3	0	0	2.25	28	0	0	0
4	2.4	2.4	1.8	29	0	0	0
5	0	0	0	30	3.25	3.25	3.25
6	3.6	3.6	3.2	31	3.25	3.25	3.25
7	2.8	2.8	2.45	32	2.5	2.5	2.75
8	2.8	2.8	4.55	33	2.5	2.5	2.75
9	4.55	4.55	4.55	34	2.0	2.0	2.0
10	0	0	0	35	5.0	5.0	5.0
11	3.6	3.6	3.6	36	2.55	2.55	0.35
12	2.1	2.1	2.1	37	4.2	4.2	4.2
13	0	0	0	38	2.55	2.55	2.6
14	2.1	2.1	2.1	39	H-SYNC		
15	2.55	2.55	2.55	40	0	0	0
16	1.6	1.6	1.3	41	2.2	2.2	1.7
17	0	0	1.9	42	5.0	5.0	5.0
18	0	0	0	43	BGP		
19	0	0	5.0	44	3.25	3.25	3.15
20	2.55	2.55	2.2	45	1.45	1.45	1.5
21	2.2	2.2	2.55	46	0	0	0
22	2.2	2.2	2.55	47	3.0	3.0	3.6
23	3.75	3.75	3.7	48	5.0	5.0	1.35
24	3.2	3.2	2.4	49	SW 25HZ		
25	5.0	5.0	5.0	50	2.45	2.45	2.45

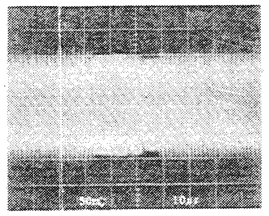
IC8101			
MODE / PIN NO	STOP	REC	PLAY
1	1.3	1.3	1.3
2	0.8	5.0	0.8
3	0.5	1.3	0.5
4	2.7	2.9	2.9
5	1.3	1.3	1.3
6	0.2	0.2	5.0
7	5.0	5.0	5.0
8	1.5	3.4	1.7
9	2.5	2.5	2.5
10	5.0	4.8	5.0
11	0	0	0
12	-	0	-
13	5.0	4.7	5.0
14	0	3.9	0
15	0	0	0
16	0.8	0	0.8
17	0.7	0	0.7
18	0	0	0
19	0.7	0	0.7
20	0.8	0	0.8
21	0	0	0
22	0	2.5	0
23	0	0.5	0
24	0	1.0	0

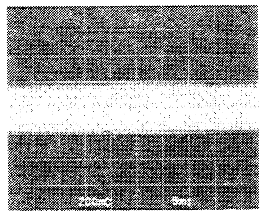
IC303			
MODE / PIN NO	STOP	REC	PLAY
1	0	0	0
2	0	0	0
3	5.0	5.0	5.0
4	3.5	3.5	3.5
5	1.9	1.9	1.9
6	2.0	2.0	2.0
7	2.55	2.55	2.55
8	8.25	8.25	8.25

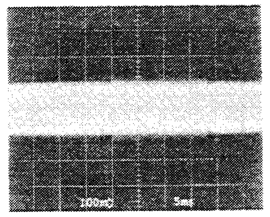
Y / C - 1

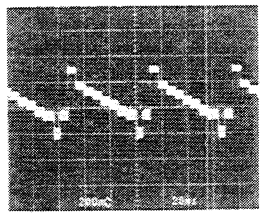

IC301-16
2.4Vp-p
REC-LP

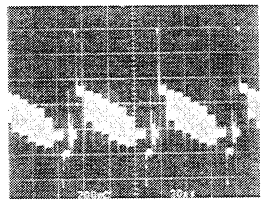

IC301-17
3.4Vp-p
REC-SP

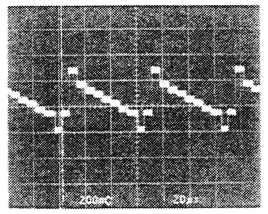

IC301-20
250mVp-p
REC

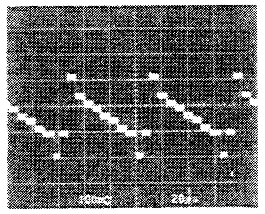

IC301-28
400mVp-p
PB-SP

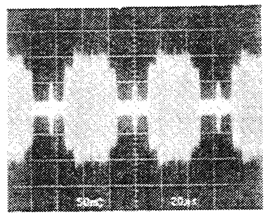

IC301-32
200mVp-p
PB-SP

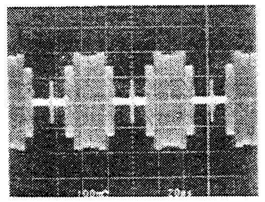

IC302-5
0.5Vp-p
PB

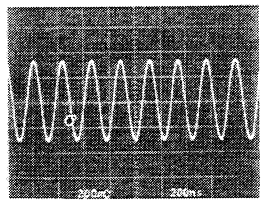

IC302-8
0.5Vp-p
REC/EE

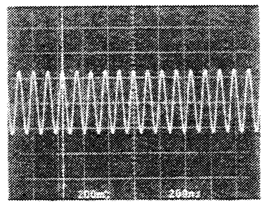

IC302-12
0.5Vp-p
PB

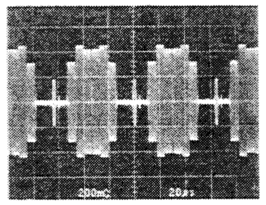

IC302-14
0.3Vp-p
PB

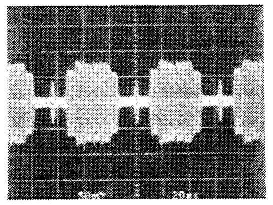

IC302-17
200mVp-p
PB

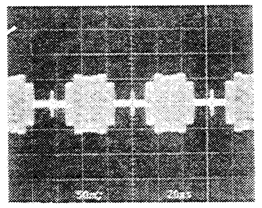

IC302-17
400mVp-p
REC/EE

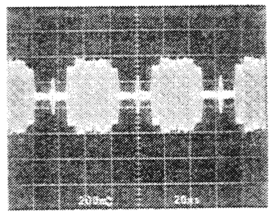

IC302-23
600mVp-p
PB/REC/EE

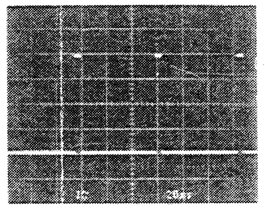

IC302-25
500mV-pp
REC/EE

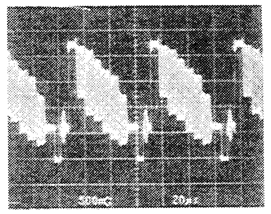

IC302-33
900mVp-p
REC/EE

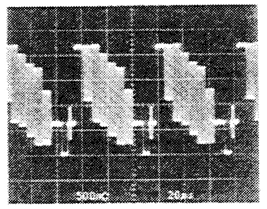

IC302-34
150mVp-p
PB

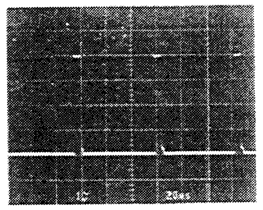

IC302-34
120mVp-p
REC/EE

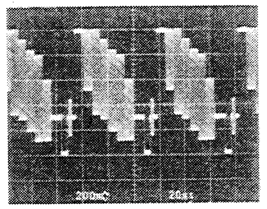

IC302-38
600mVp-p
PB

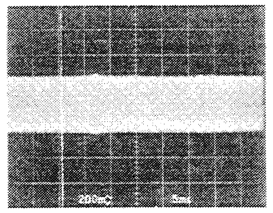

IC302-38
4Vp-p
PB/REC/EE

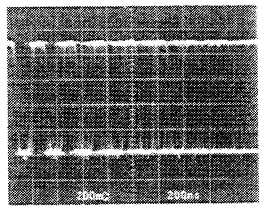

IC302-41
2.15Vp-p
PB


IC302-41
2.15Vp-p
REC/EE

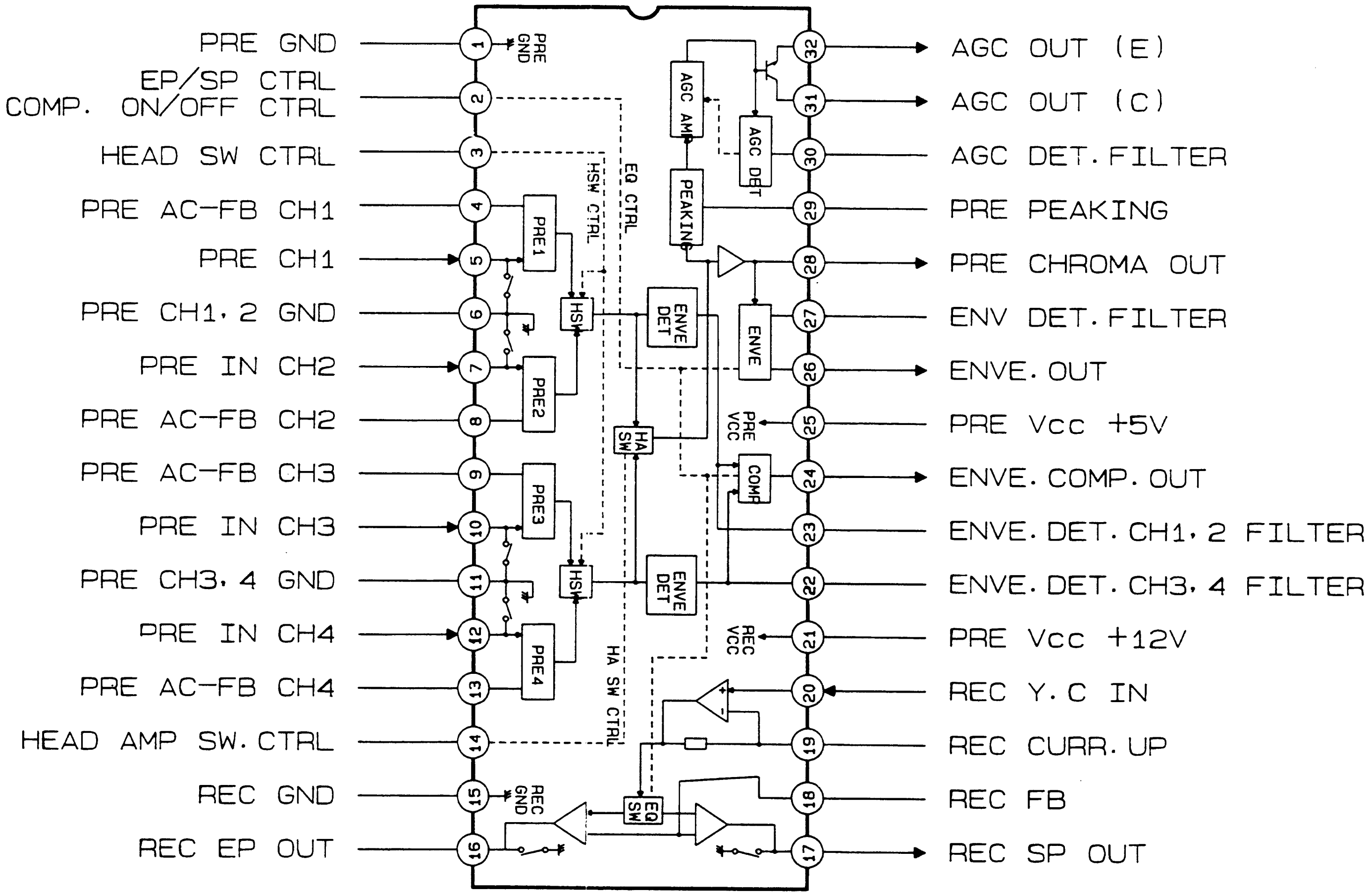

IC302-43
4Vp-p
PB/REC/EE


IC302-44
1Vp-p
REC/EE

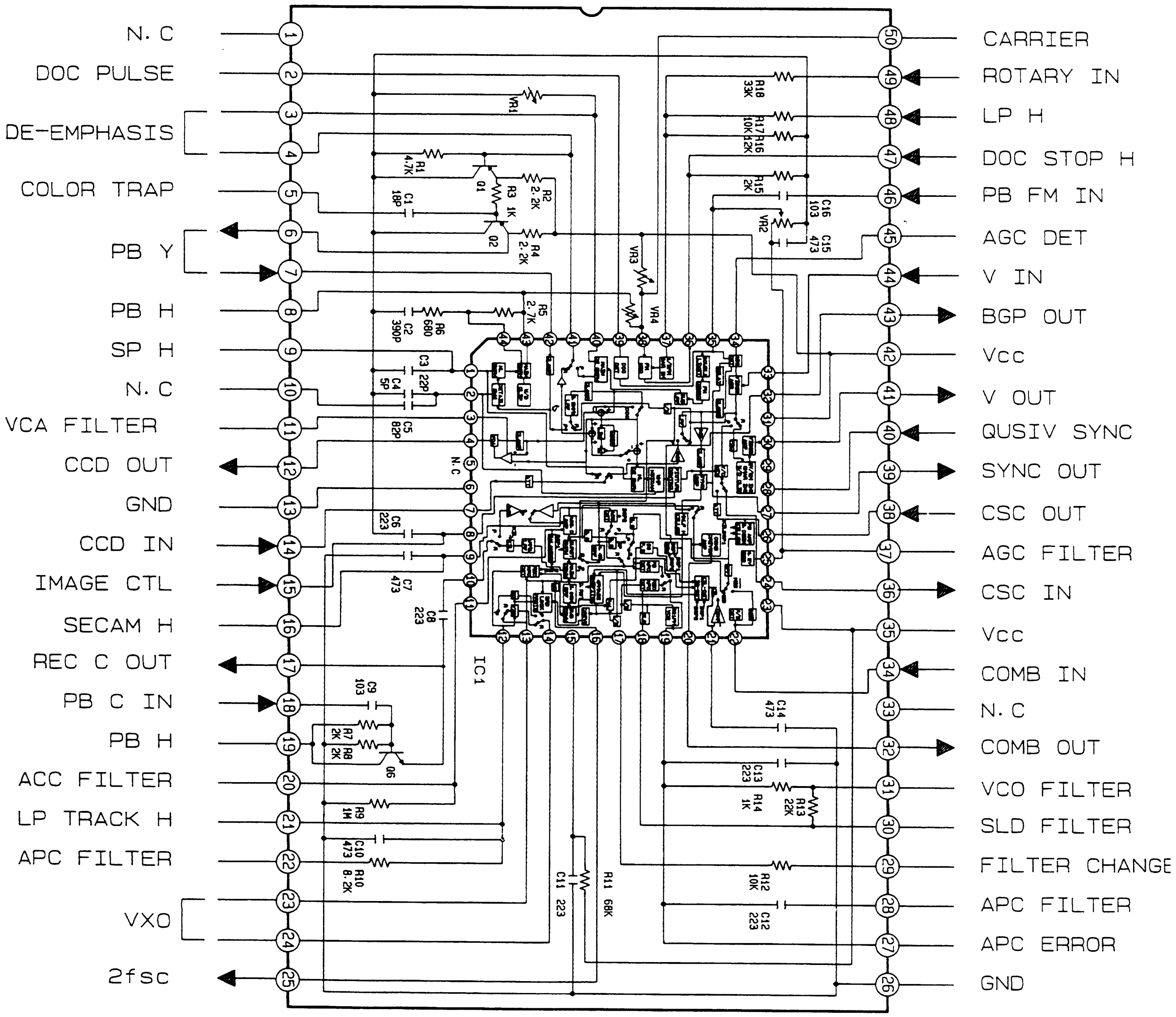

IC302-46
400mVp-p
PB


IC302-47
900mVp-p
REC/EE

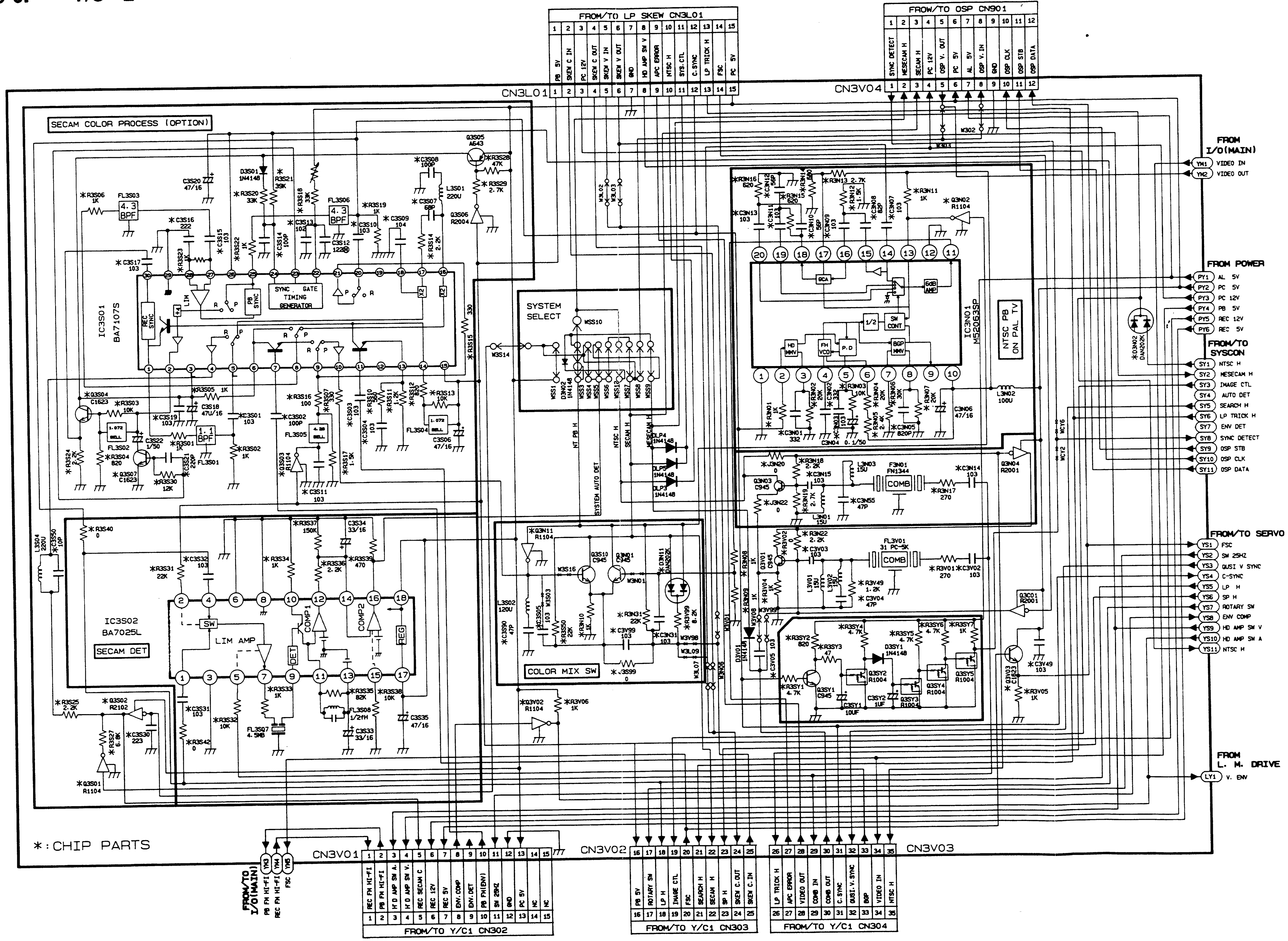
IC301 BA7277S


PRE GND
EP/SP CTRL
COMP. ON/OFF CTRL
HEAD SW CTRL
PRE AC-FB CH1
PRE CH1
PRE CH1, 2 GND
PRE IN CH2
PRE AC-FB CH2
PRE AC-FB CH3
PRE IN CH3
PRE CH3, 4 GND
PRE IN CH4
PRE AC-FB CH4
HEAD AMP SW. CTRL
REC GND
REC EP OUT
AGC OUT (E)
AGC OUT (C)
AGC DET. FILTER
PRE PEAKING
PRE CHROMA OUT
ENV DET. FILTER
ENVE. OUT
PRE Vcc +5V
ENVE. COMP. OUT
ENVE. DET. CH1, 2 FILTER
ENVE. DET. CH3, 4 FILTER
PRE Vcc +12V
REC Y. C IN
REC CURR. UP
REC FB
REC SP OUT
PRE GND
AGC AMP
AGC DET
PEAKING
EQ CTRL
HSW CTRL
PRE1
HSW
ENVE DET
ENVE
PRE2
HA SW
PRE VCC
COMP
PRE3
PRE4
REC VCC
HA SW CTRL
REC GND
EQ SW

IC302 SVH-350


N. C
DOC PULSE
DE-EMPHASIS
COLOR TRAP
PB Y
PB H
SP H
N. C
VCA FILTER
CCD OUT
GND
CCD IN
IMAGE CTL
SECAM H
REC C OUT
PB C IN
PB H
ACC FILTER
LP TRACK H
APC FILTER
VXO
2fsc
CARRIER
ROTARY IN
LP H
DOC STOP H
PB FM IN
AGC DET
V IN
BGP OUT
Vcc
V OUT
QUSIV SYNC
SYNC OUT
CSC OUT
AGC FILTER
CSC IN
Vcc
COMB IN
N. C
COMB OUT
VCO FILTER
SLD FILTER
FILTER CHANGE
APC FILTER
APC ERROR
GND
VR1
R1 4.7K
C1 18P
Q1
R3 1K
R2 2.2K
Q2
R4 2.2K
R18 33K
R17 R16 10K 12K
R15 2K
C16 103
VR2
C15 473
VR3
VR4
R5 2.7K
R6 680
C2 390P
C3 22P
C4 5P
C5 82P
N.C
C6 223
C7 473
C8 223
IC1
C9 103
R7 R8 2K 2K
Q6
R9 1M
C10 473
R10 8.2K
C11 223
R11 68K
C14 473
C13 223
R14 1K
R13 22K
R12 10K
C12 223

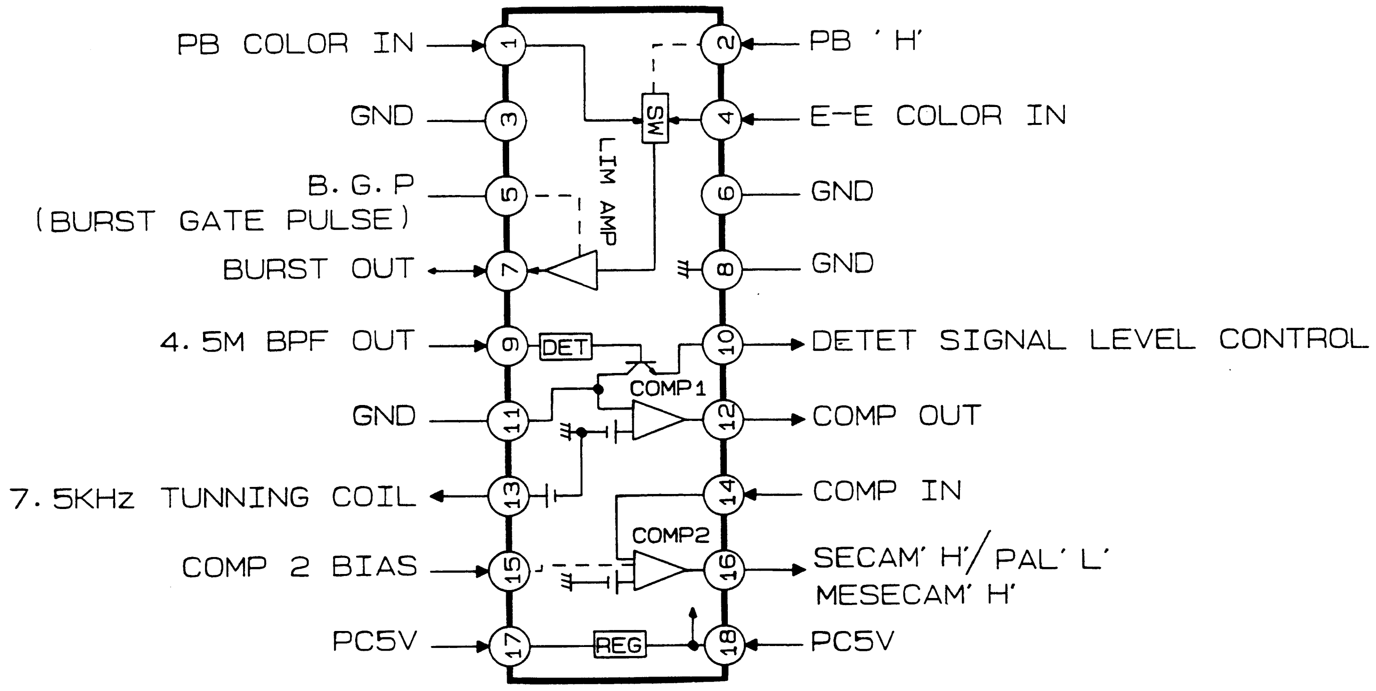
9-6. Y/C - 2


FROM/TO LP SKEW CN3L01
FROM/TO OSP CN901
CN3L01
CN3V04
SECAM COLOR PROCESS (OPTION)
IC3S01 BA7107S
SYNC GATE TIMING GENERATOR
IC3S02 BA7025L
SECAM DET
LIM AMP
COMP1
COMP2
SYSTEM SELECT
COLOR MIX SW
IC3N01 M52063SP
NTSC PB ON PAL TV
COMB
FROM I/O(MAIN)
YM1 VIDEO IN
YM2 VIDEO OUT
FROM POWER
PY1 AL 5V
PY2 PC 5V
PY3 PC 12V
PY4 PB 5V
PY5 REC 12V
PY6 REC 5V
FROM/TO SYSCON
SY1 NTSC H
SY2 MESECAM H
SY3 IMAGE CTL
SY4 AUTO DET
SY5 SEARCH H
SY6 LP TRICK H
SY7 ENV DET
SY8 SYNC DETECT
SY9 OSP STB
SY10 OSP CLK
SY11 OSP DATA
FROM/TO SERVO
YS1 FSC
YS2 SW 25HZ
YS3 QUSI V SYNC
YS4 C-SYNC
YS5 LP H
YS6 SP H
YS7 ROTARY SW
YS8 ENV COMP
YS9 HD AMP SW V
YS10 HD AMP SW A
YS11 NTSC H
FROM L. M. DRIVE
LY1 V. ENV
FROM/TO I/O(MAIN)
YM3 PB FM HI-FI
YM4 REC FM HI-FI
YM5 FSC
CN3V01
CN3V02
CN3V03
FROM/TO Y/C1 CN302
FROM/TO Y/C1 CN303
FROM/TO Y/C1 CN304
*: CHIP PARTS

NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

SPECIAL NOTE
All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

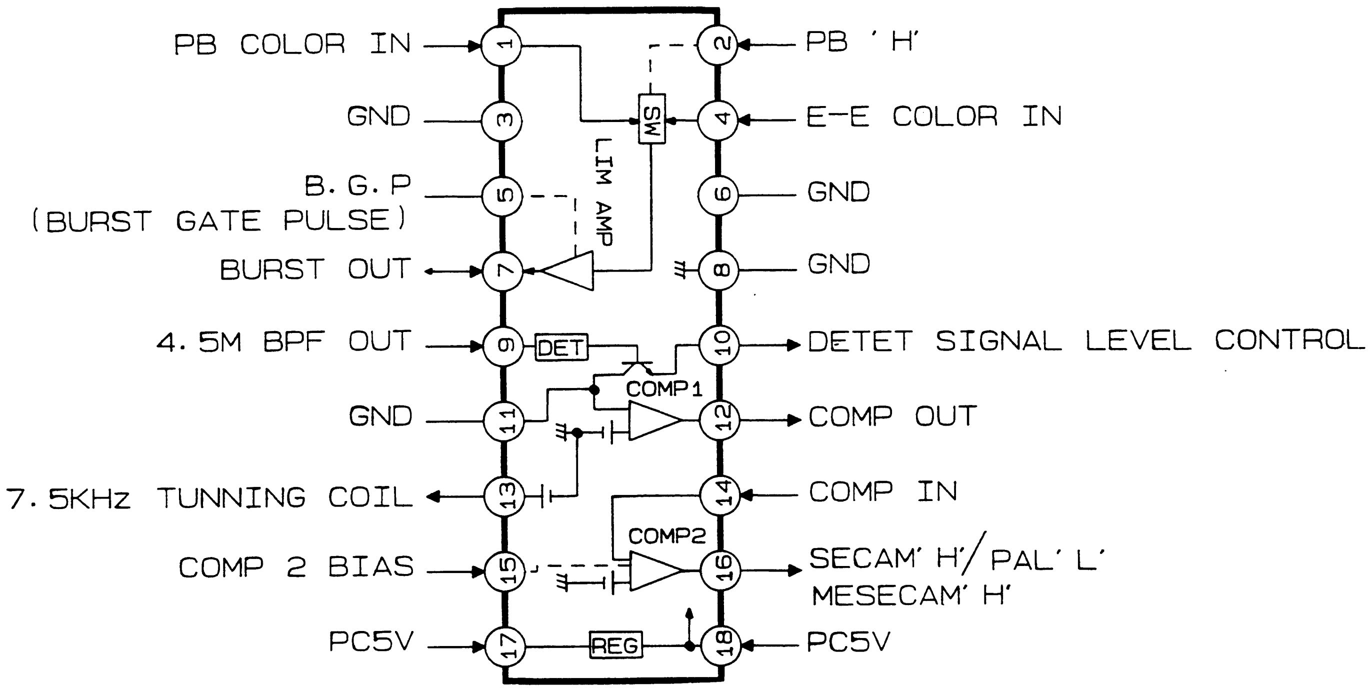
IC3S02 BA7025L


PB COLOR IN
1
2
PB ' H'
GND
3
SW
4
E-E COLOR IN
LIM AMP
B. G. P
(BURST GATE PULSE)
5
6
GND
BURST OUT
7
8
GND
4. 5M BPF OUT
9
DET
10
DETET SIGNAL LEVEL CONTROL
COMP1
GND
11
12
COMP OUT
7. 5KHz TUNNING COIL
13
14
COMP IN
COMP2
COMP 2 BIAS
15
16
SECAM' H'/PAL' L'
MESECAM' H'
PC5V
17
REG
18
PC5V

IC3S02

MODE / PIN NO	STOP	REC	PLAY
1	3.5	3.5	3.7
2	0	0	1.05
3	0	0	0
4	3.6	3.6	3.6
5	3.6	3.6	2.55
6	0	0	0
7	3.65	3.65	3.8
8	0	0	0
9	1.35	1.35	1.35
10	0.45	0.45	0.5
11	3.4	3.4	3.4
12	4.25	4.25	4.10
13	3.55	3.55	0
14	4.15	4.15	4.2
15	5	5	5
16	5	5	5

IC3S02 BA7025L

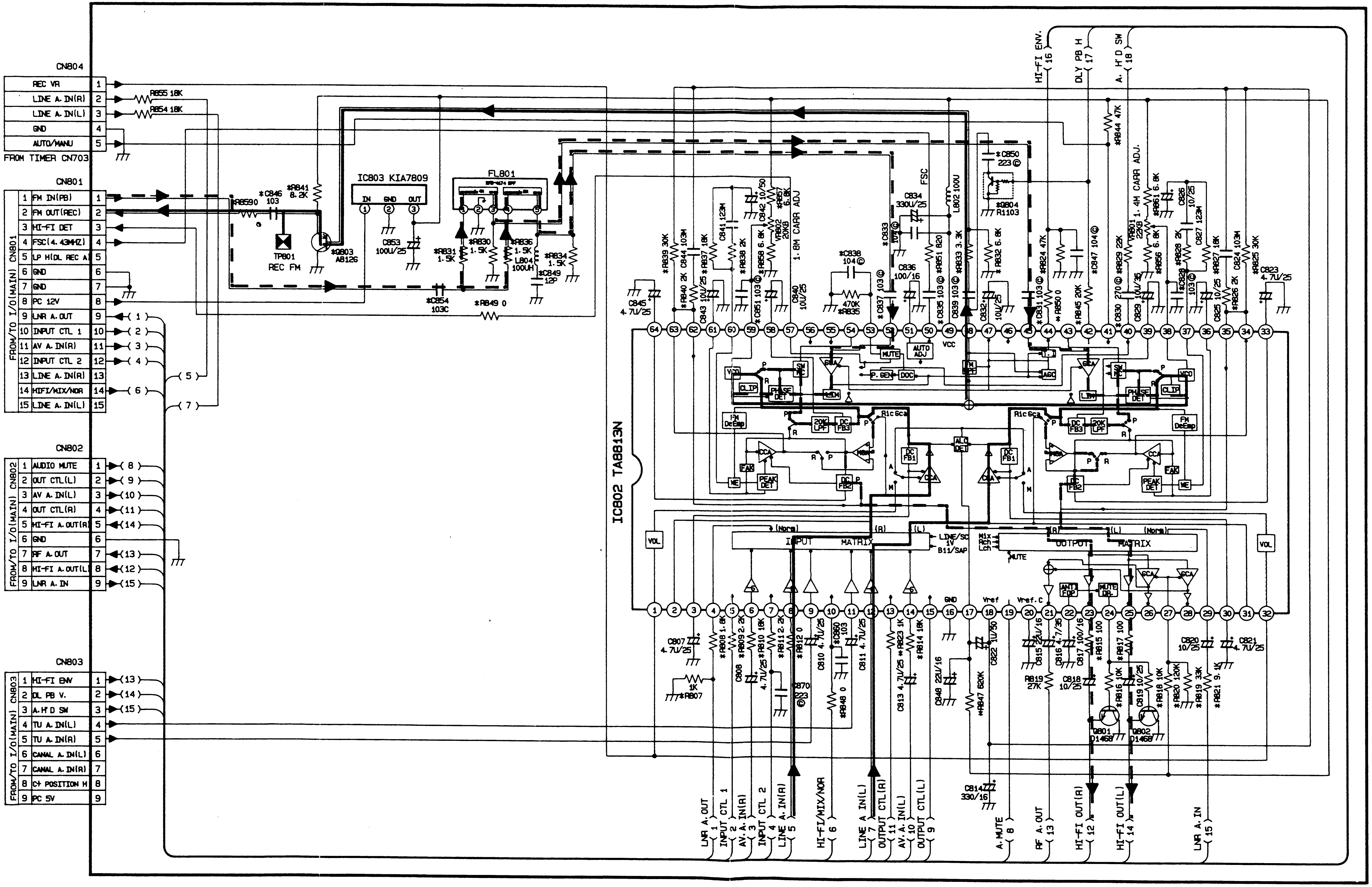

PB COLOR IN
GND
B. G. P
(BURST GATE PULSE)
BURST OUT
4. 5M BPF OUT
GND
7. 5KHz TUNNING COIL
COMP 2 BIAS
PC5V
PB ' H'
E-E COLOR IN
GND
GND
DETET SIGNAL LEVEL CONTROL
COMP OUT
COMP IN
SECAM' H'/ PAL' L'
MESECAM' H'
PC5V
SW
LIM AMP
DET
COMP1
COMP2
REG
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

IC3S02			
MODE PIN NO	STOP	REC	PLAY
1	3.5	3.5	3.7
2	0	0	1.05
3	0	0	0
4	3.6	3.6	3.6
5	3.6	3.6	2.55
6	0	0	0
7	3.65	3.65	3.8
8	0	0	0
9	1.35	1.35	1.35
10	0.45	0.45	0.5
11	3.4	3.4	3.4
12	4.25	4.25	4.10
13	3.55	3.55	0
14	4.15	4.15	4.2
15	5	5	5
16	5	5	5

9-7. Hi-Fi Audio

RED

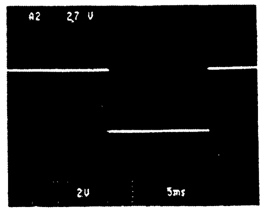
------------ PB PROCESS
———————— REC PROCESS

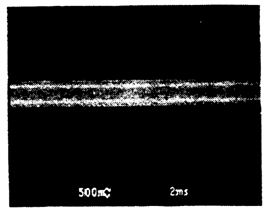

CN804
1 REC VR
2 LINE A. IN(R)
3 LINE A. IN(L)
4 GND
5 AUTO/MANU
FROM TIMER CN703
R855 18K
R854 18K
CN801
1 FM IN(PB)
2 FM OUT(REC)
3 HI-FI DET
4 FSC(4.43MHZ)
5 LP H(DL REC A)
6 GND
7 GND
8 PC 12V
9 LNR A. OUT
10 INPUT CTL 1
11 AV A. IN(R)
12 INPUT CTL 2
13 LINE A. IN(R)
14 HIFI/MIX/NOR
15 LINE A. IN(L)
FROM/TO I/O(MAIN) CN801
CN802
1 AUDIO MUTE
2 OUT CTL(L)
3 AV A. IN(L)
4 OUT CTL(R)
5 HI-FI A. OUT(R)
6 GND
7 RF A. OUT
8 HI-FI A. OUT(L)
9 LNR A. IN
FROM/TO I/O(MAIN) CN802
CN803
1 HI-FI ENV
2 DL PB V.
3 A.H'D SW
4 TU A. IN(L)
5 TU A. IN(R)
6 CANAL A. IN(L)
7 CANAL A. IN(R)
8 C+ POSITION H
9 PC 5V
FROM/TO I/O(MAIN) CN803
IC803 KIA7809
IN GND OUT
FL801
*R590
*C846 103
*R841 8.2K
TP801 REC FM
*Q803 A8126
C853 100U/25
*R831 1.5K
*R830 1.5K
*R836 1.5K
L804 100UH
*R834 1.5K
*C849 12P
*C854 103C
*R849 0
IC802 TA8813N
C845 4.7U/25
*R839 30K
C844 103M
*R840 2K
*R837 18K
C843 10U/25
C841 123M
*R838 2K
*C851 103
*R858 6.8K
C842 10/50
VR802 20KB
1.8M CARR ADJ
*R857 5.6K
C840 10U/25
*C838 104
470K *R835
*C837 103
*C833 104
C834 330U/25
C836 100/16
*R851 820
*C835 103
*R833 3.3K
*C839 103
FSC
L802 100U
*R832 6.8K
C832 10U/25
*C850 223
*Q804 R1103
*R824 47K
*C831 103
*R850 0
*R845 20K
*C847 104
*R844 47K
4.4M CARR ADJ
*C830 270
*R829 22K
VR801 22KB
C829 10U/35
*R856 6.8K
*R851 6.8K
*R828 2K
C826 10/25
*C828 103
C827 123M
C825 10/25
*R827 18K
*R826 2K
C824 103M
*R825 30K
C823 4.7U/25
HI-FI ENV. 16
DLY PB H 17
A. H'D SW 18
MUTE
AUTO ADJ
VCC
VCO
SW NC
P.SEN
DOC
CLIP
PHASE DET
LSDW
FM DeEmp
20K LPF
DC FB3
Ric 6ca
AGC
CCA
FAK
ME
PEAK DET
DC FB2
DC FB1
ALC DET
NOA
VOL
INPUT MATRIX
OUTPUT MATRIX
(Norm) (R) (L)
LINE/SC 1V B11/SAP
Mix Rch Lch
MUTE
ANTI POP
MUTE DR
GCA
GND
Vref
Vref.C
C807 4.7U/25
*R807 1K
*R808 1.8K
*R809 2.2K
C808
4.7U/25
*R810 18K
*R811 2.2K
*R812 0
C870 223
*R848 0
C810 4.7U/25
*C860 103
C811 4.7U/25
C813 4.7U/25
*R823 1K
*R814 18K
C848 22U/16
*R847 620K
C822 1U/50
C814 330/16
R819 27K
C815 22U/16
C816 4.7/35
C817 100/16
C818 10/25
*R815 100
*R817 100
*R816 10K
C819 10/25
*R818 10K
*R820 120K
*R819 33K
*R821 9.1K
C820 10/25
C821 4.7U/25
Q801 D1468
Q802 D1468
LNR A. OUT 1
INPUT CTL 1 2
AV. A. IN(R) 3
INPUT CTL 2 4
LINE A. IN(R) 5
HI-FI/MIX/NOR 6
LINE A IN(L) 7
OUTPUT CTL(R) 11
AV. A. IN(L) 10
OUTPUT CTL(L) 9
A. MUTE 8
RF A. OUT 13
HI-FI OUT(R) 12
HI-FI OUT(L) 14
LNR A. IN 15

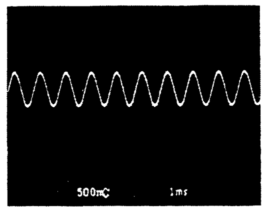
NOTE *Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.*

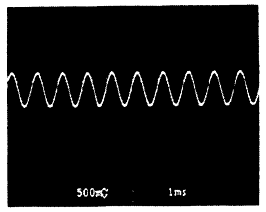
SPECIAL NOTE *All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.*

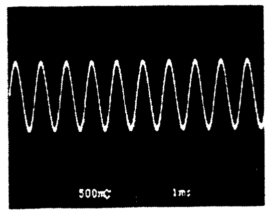
IC802							
MODE / PIN NO	STOP	REC	PLAY	MODE / PIN NO	STOP	REC	PLAY
1	0	0	0	33	4.2	4.2	0
2	4.2	4.2	4.3	34	4.2	4.2	4.2
3	4.1	4.1	4.2	35	4.15	4.2	4.2
4	3.9	4.0	4.0	36	0.3	0.3	0.4
5	2.6	2.6	2.7	37	4.05	4.2	4.1
6	4.2	4.2	4.2	38	3.75	3.8	3.8
7	2.5	2.6	2.7	39	4.25	4.3	4.5
8	4.2	4.2	4.3	40	3.6	3.6	3.0
9	4.1	4.2	4.2	41	5.0	5.1	5.1
10	2.5	2.6	2.7	42	0.7	0.7	4.5
11	4.1	4.2	4.2	43	3.5	3.5	3.6
12	4.2	4.2	4.3	44	0	0	3.4
13	4.95	5.0	5.0	45	3.7	3.7	3.5
14	4.2	3.1	4.3	46	2.6	2.7	2.7
15	5.0	5.0	5.0	47	1.25	1.3	1.3
16	0	0	0	48	4.5	4.8	5.3
17	3.05	3.1	2.0	49	9.0	9.0	9.0
18	4.2	4.2	4.2	50	2.8	2.8	2.8
19	0	0	0	51	2.0	2.0	2.0
20	4.2	4.2	4.2	52	3.7	3.7	3.5
21	4.2	4.2	4.2	53	1.8	1.8	1.8
22	7.0	7.0	7.1	54	3.6	3.6	3.6
23	4.2	4.2	4.2	55	0	0	0
24	0	0	0	56	0.5	0.5	0.5
25	4.2	4.3	4.2	57	0	0	0.9
26	4.2	4.2	4.3	58	4.3	4.2	4.8
27	2.0	2.0	2.0	59	3.7	3.7	3.7
28	4.3	4.3	4.3	60	4.3	4.3	4.2
29	4.2	4.2	4.3	61	0.4	0.4	0.4
30	4.1	4.1	4.3	62	4.2	4.2	4.4
31	4.05	4.2	4.3	63	4.3	4.2	4.2
32	0	0	0	64	4.3	4.3	4.2

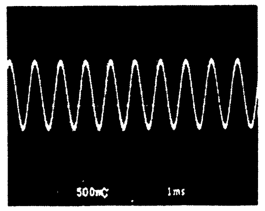

IC801-12
5.0Vp-p
E-E/PB

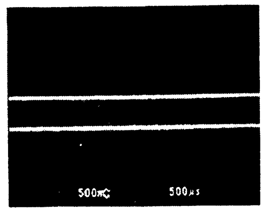

IC801-23
500mVp-p
REC

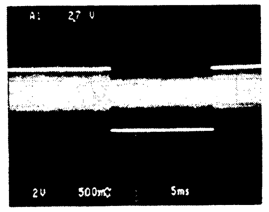

IC802-8
0.7Vp-p
E-E/PB

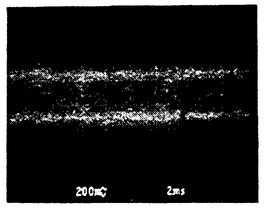

IC802-12
0.7Vp-p
E-E/PB


IC802-23
1.4Vp-p
E-E/PB

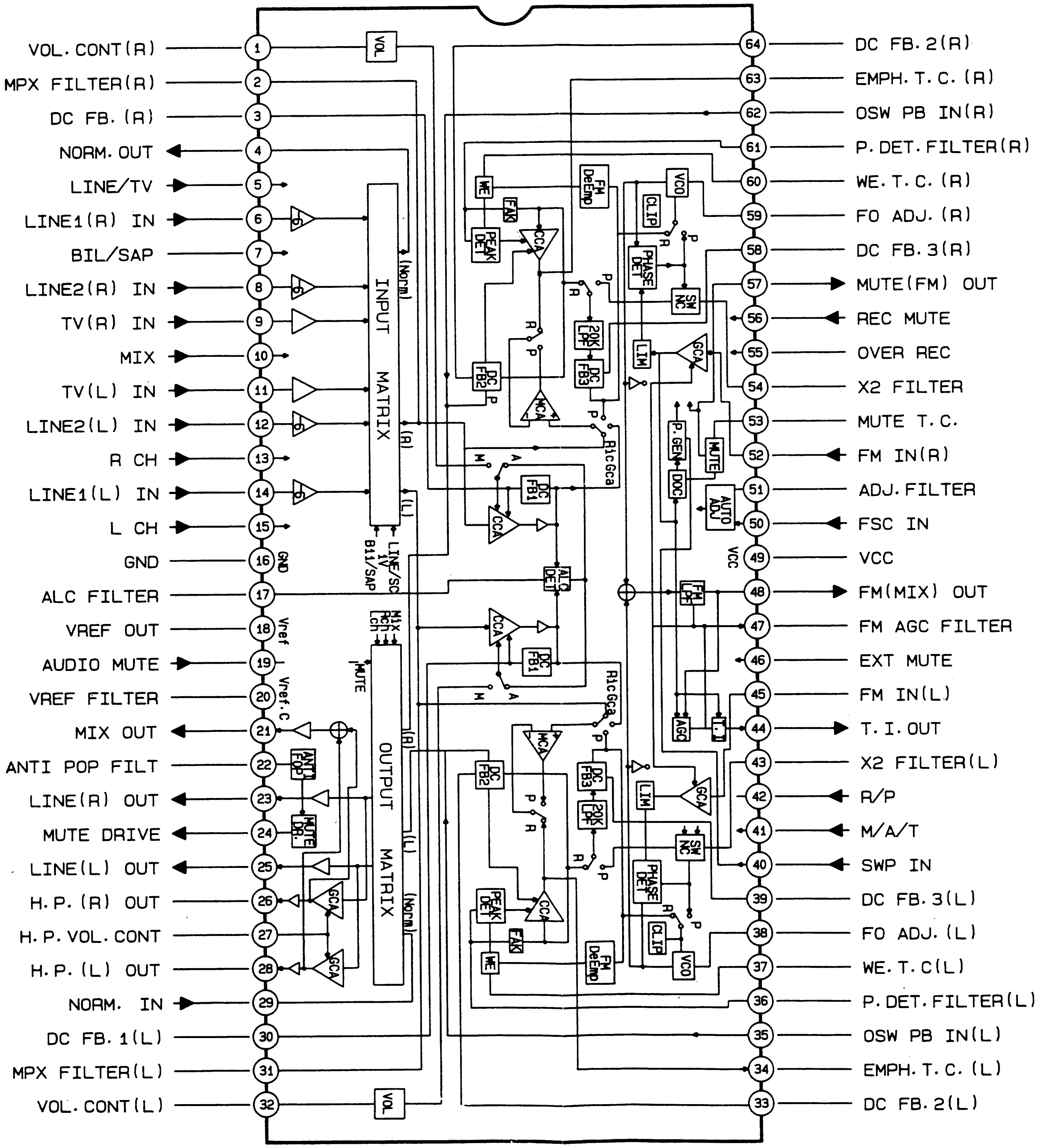

IC802-25
1.4Vp-p
E-E/PB


IC802-50
600mVp-p
E-E/PB

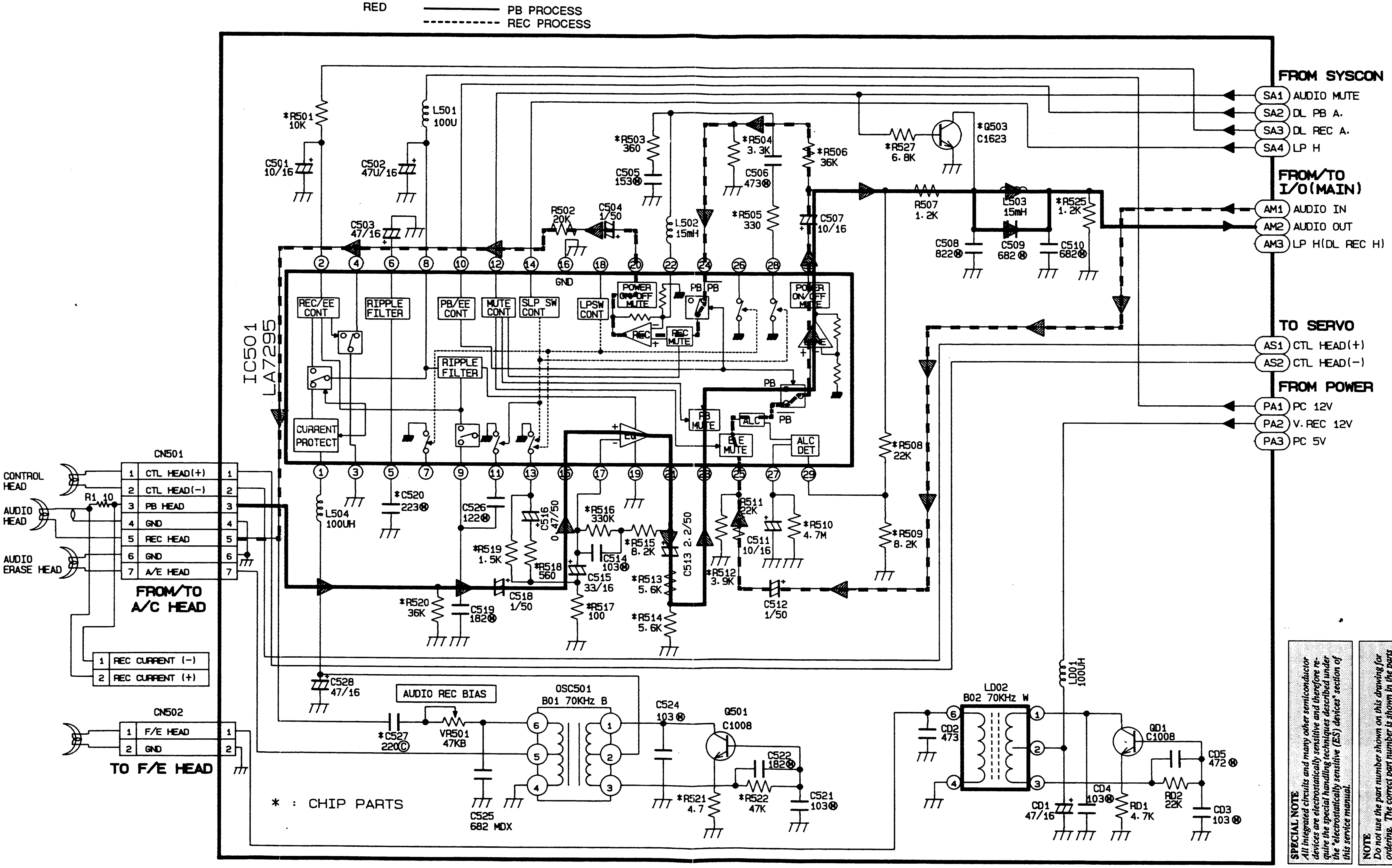

CN801-1
500mVp-p
PB


TP801
600mVp-p
REC

IC802 TA8813N


VOL. CONT(R) 1
MPX FILTER(R) 2
DC FB.(R) 3
NORM. OUT 4
LINE/TV 5
LINE1(R) IN 6
BIL/SAP 7
LINE2(R) IN 8
TV(R) IN 9
MIX 10
TV(L) IN 11
LINE2(L) IN 12
R CH 13
LINE1(L) IN 14
L CH 15
GND 16
ALC FILTER 17
VREF OUT 18
AUDIO MUTE 19
VREF FILTER 20
MIX OUT 21
ANTI POP FILT 22
LINE(R) OUT 23
MUTE DRIVE 24
LINE(L) OUT 25
H.P.(R) OUT 26
H.P. VOL. CONT 27
H.P.(L) OUT 28
NORM. IN 29
DC FB. 1(L) 30
MPX FILTER(L) 31
VOL. CONT(L) 32
64 DC FB. 2(R)
63 EMPH. T. C.(R)
62 OSW PB IN(R)
61 P. DET. FILTER(R)
60 WE. T. C.(R)
59 FO ADJ.(R)
58 DC FB. 3(R)
57 MUTE(FM) OUT
56 REC MUTE
55 OVER REC
54 X2 FILTER
53 MUTE T. C.
52 FM IN(R)
51 ADJ. FILTER
50 FSC IN
49 VCC
48 FM(MIX) OUT
47 FM AGC FILTER
46 EXT MUTE
45 FM IN(L)
44 T. I. OUT
43 X2 FILTER(L)
42 R/P
41 M/A/T
40 SWP IN
39 DC FB. 3(L)
38 FO ADJ.(L)
37 WE. T. C(L)
36 P. DET. FILTER(L)
35 OSW PB IN(L)
34 EMPH. T. C.(L)
33 DC FB. 2(L)
INPUT MATRIX
OUTPUT MATRIX
VOL
GCA
MCA
CCA
LIM
CLIP
VCO
PHASE DET
PEAK DET
FM DeEmp
DC FB1
DC FB2
DC FB3
20K LPF
ALC DET
ANTI POP
MUTE DR.
P. GEN
DOC
AGC
AUTO ADJ
SW NC
Vref
Vref. C
GND
VCC

9-8. Linear Audio


RED
PB PROCESS
REC PROCESS
FROM SYSCON
SA1 AUDIO MUTE
SA2 DL PB A.
SA3 DL REC A.
SA4 LP H
FROM/TO I/O(MAIN)
AM1 AUDIO IN
AM2 AUDIO OUT
AM3 LP H(DL REC H)
TO SERVO
AS1 CTL HEAD(+)
AS2 CTL HEAD(−)
FROM POWER
PA1 PC 12V
PA2 V.REC 12V
PA3 PC 5V
IC501 LA7295
REC/EE CONT
RIPPLE FILTER
PB/EE CONT
MUTE CONT
SLP SW CONT
LPSW CONT
POWER ON/OFF MUTE
REC
REC MUTE
PB
CURRENT PROTECT
EQ
PB MUTE
EE MUTE
ALC
ALC DET
GND
*R501 10K
C501 10/16
L501 100U
C502 47U/16
C503 47/16
R502 20K
C504 1/50
*R503 360
C505 153Ⓜ
L502 15mH
*R504 3.3K
C506 473Ⓜ
*R505 330
*R506 36K
C507 10/16
*R527 6.8K
*Q503 C1623
R507 1.2K
L503 15mH
*R525 1.2K
C508 822Ⓜ
C509 682Ⓜ
C510 682Ⓜ
*R508 22K
*R509 8.2K
CN501
CONTROL HEAD
AUDIO HEAD
AUDIO ERASE HEAD
R1 10
1 CTL HEAD(+)
2 CTL HEAD(−)
3 PB HEAD
4 GND
5 REC HEAD
6 GND
7 A/E HEAD
FROM/TO A/C HEAD
1 REC CURRENT (−)
2 REC CURRENT (+)
L504 100UH
*C520 223Ⓜ
C526 122Ⓜ
C516 47/50
*R519 1.5K
*R518 560
*R516 330K
*R515 8.2K
C514 103Ⓜ
C515 33/16
*R513 5.6K
C513 2.2/50
*R517 100
*R514 5.6K
*R520 36K
C519 182Ⓜ
C518 1/50
R511 22K
C511 10/16
*R510 4.7M
*R512 3.9K
C512 1/50
C528 47/16
AUDIO REC BIAS
*C527 220Ⓒ
VR501 47KB
C525 682 MDX
OSC501 B01 70KHz B
C524 103Ⓜ
Q501 C1008
C522 182Ⓜ
*R521 4.7
*R522 47K
C521 103Ⓜ
CN502
1 F/E HEAD
2 GND
TO F/E HEAD
* : CHIP PARTS
LD01 100UH
LD02 B02 70KHz W
CD2 473
QD1 C1008
CD5 472Ⓜ
RD2 22K
CD4 103Ⓜ
CD1 47/16
RD1 4.7K
CD3 103Ⓜ

SPECIAL NOTE
All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

NOTE
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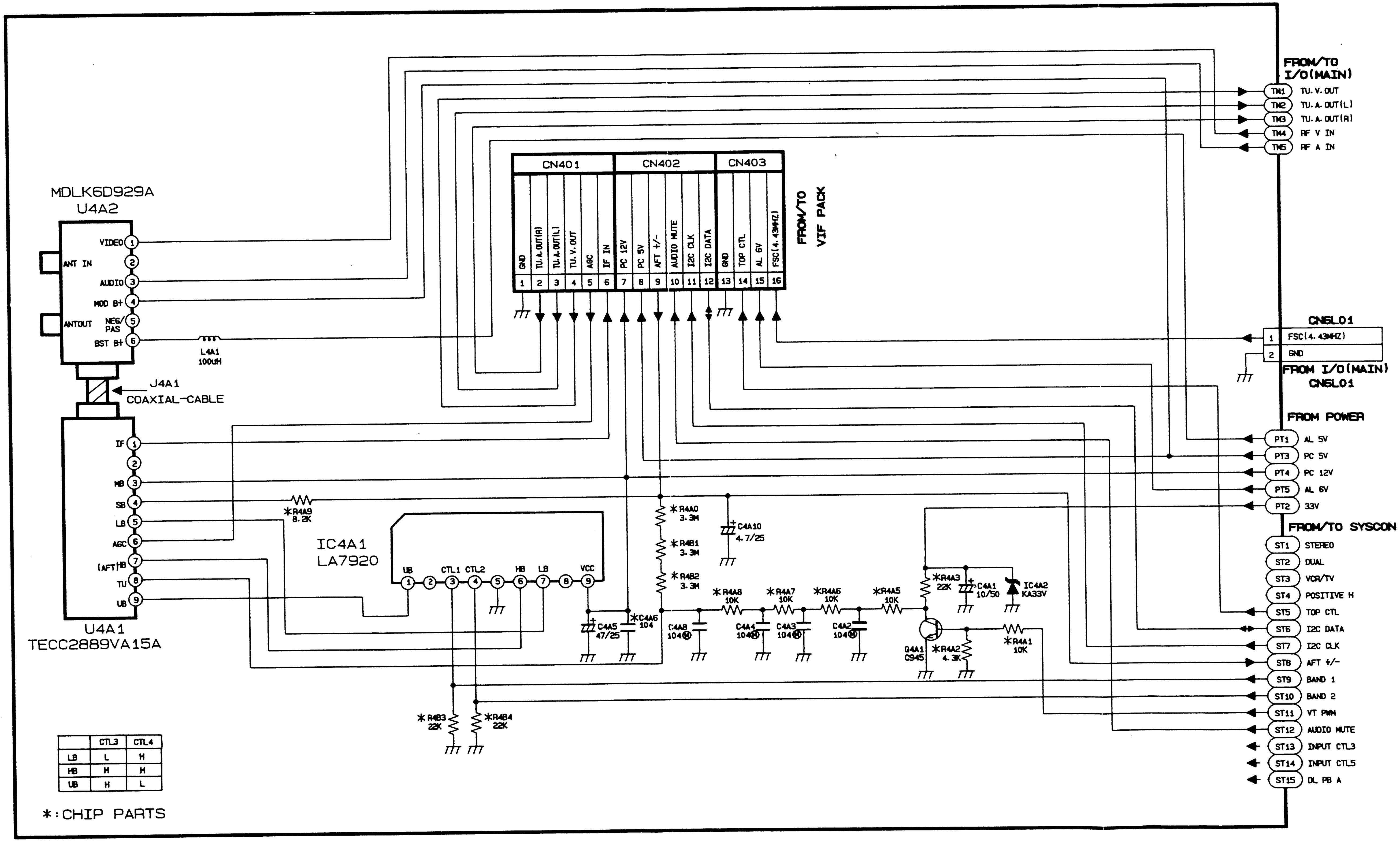
9-9. Tuner


FROM/TO I/O(MAIN)
TM1 TU. V. OUT
TM2 TU. A. OUT(L)
TM3 TU. A. OUT(R)
TM4 RF V IN
TM5 RF A IN
CN401
CN402
CN403
GND
TU. A. OUT(R)
TU. A. OUT(L)
TU. V. OUT
AGC
IF IN
PC 12V
PC 5V
AFT +/-
AUDIO MUTE
I2C CLK
I2C DATA
GND
TOP CTL
AL 6V
FSC(4. 43MHZ)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
FROM/TO VIF PACK
MDLK6D929A
U4A2
VIDEO 1
ANT IN 2
AUDIO 3
MOD B+ 4
ANTOUT NEG/PAS 5
BST B+ 6
L4A1 100uH
J4A1
COAXIAL-CABLE
IF 1
2
MB 3
SB 4
LB 5
AGC 6
(AFT)HB 7
TU 8
UB 9
U4A1
TECC2889VA15A
*R4A9 8.2K
IC4A1
LA7920
UB CTL1 CTL2 HB LB VCC
1 2 3 4 5 6 7 8 9
C4A5 47/25
*C4A6 104
*R4A0 3.3M
*R4B1 3.3M
*R4B2 3.3M
C4A10 4.7/25
C4A8 104Ⓜ
*R4A8 10K
C4A4 104Ⓜ
*R4A7 10K
C4A3 104Ⓜ
*R4A6 10K
C4A2 104Ⓜ
*R4A5 10K
*R4A3 22K
C4A1 10/50
IC4A2 KA33V
Q4A1 C945
*R4A2 4.3K
*R4A1 10K
*R4B3 22K
*R4B4 22K
CN6L01
1 FSC(4. 43MHZ)
2 GND
FROM I/O(MAIN) CN6L01
FROM POWER
PT1 AL 5V
PT3 PC 5V
PT4 PC 12V
PT5 AL 6V
PT2 33V
FROM/TO SYSCON
ST1 STEREO
ST2 DUAL
ST3 VCR/TV
ST4 POSITIVE H
ST5 TOP CTL
ST6 I2C DATA
ST7 I2C CLK
ST8 AFT +/-
ST9 BAND 1
ST10 BAND 2
ST11 VT PWM
ST12 AUDIO MUTE
ST13 INPUT CTL3
ST14 INPUT CTL5
ST15 DL PB A

	CTL3	CTL4
LB	L	H
HB	H	H
UB	H	L

*: CHIP PARTS

SPECIAL NOTE
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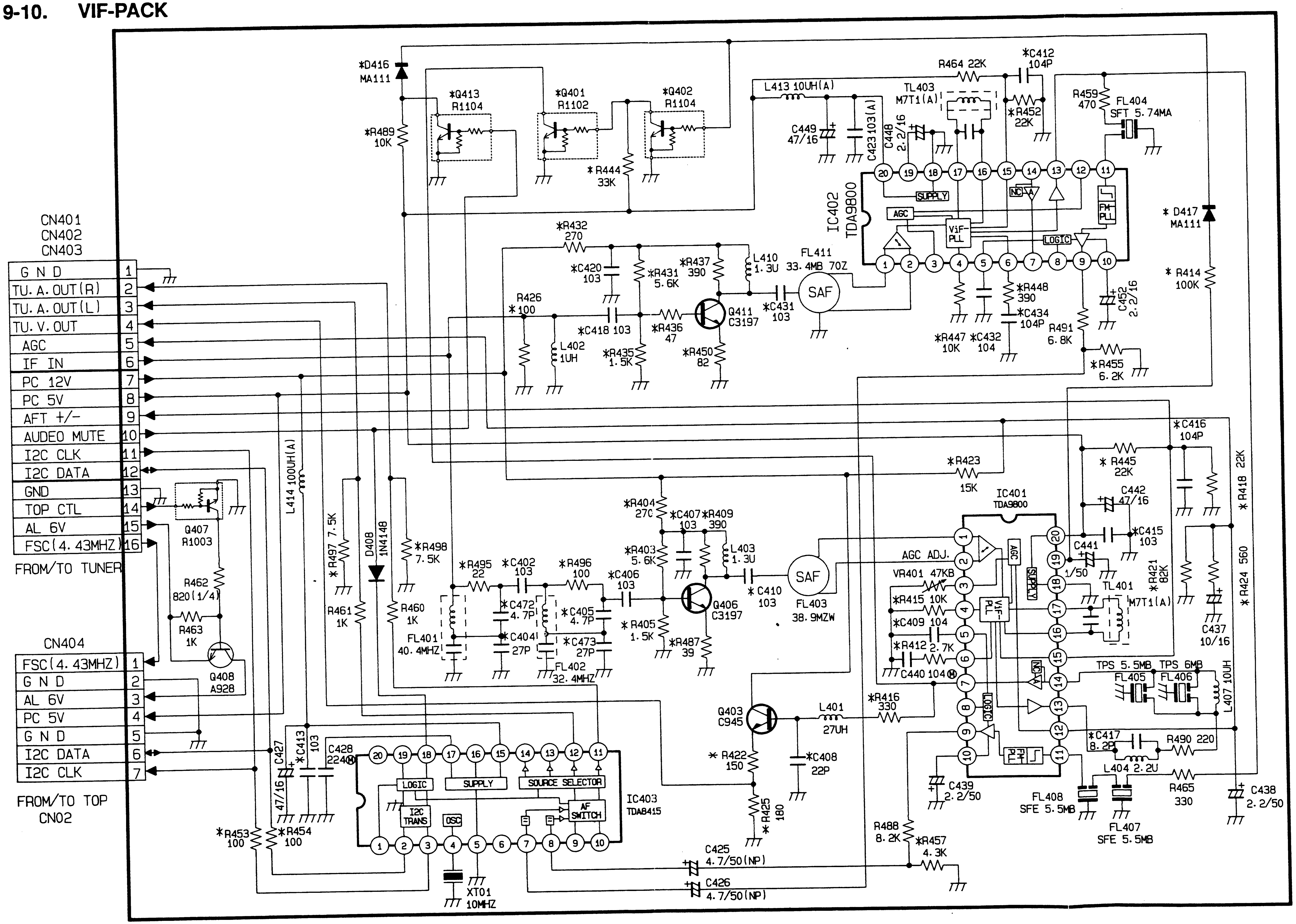
NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

9-10. VIF-PACK


CN401
CN402
CN403
1 GND
2 TU. A. OUT(R)
3 TU. A. OUT(L)
4 TU. V. OUT
5 AGC
6 IF IN
7 PC 12V
8 PC 5V
9 AFT +/-
10 AUDEO MUTE
11 I2C CLK
12 I2C DATA
13 GND
14 TOP CTL
15 AL 6V
16 FSC(4. 43MHZ)
FROM/TO TUNER
CN404
1 FSC(4. 43MHZ)
2 GND
3 AL 6V
4 PC 5V
5 GND
6 I2C DATA
7 I2C CLK
FROM/TO TOP CN02
*D416 MA111
*R489 10K
*Q413 R1104
*Q401 R1102
*Q402 R1104
*R444 33K
L413 10UH(A)
C449 47/16
C423 103(A)
C448 2.2/16
TL403 M7T1(A)
R464 22K
*C412 104P
*R452 22K
R459 470
FL404 SFT 5.74MA
IC402 TDA9800
SUPPLY
AGC
VIF-PLL
NC
LOGIC
FM PLL
*D417 MA111
*R414 100K
*R432 270
*C420 103
*R431 5.6K
*R437 390
L410 1.3U
FL411 33.4MB 70Z
SAF
R426 *100
*C418 103
*R436 47
Q411 C3197
*C431 103
L402 1UH
*R435 1.5K
*R450 82
*R448 390
*C434 104P
*R447 10K
*C432 104
R491 6.8K
C452 2.2/16
*R455 6.2K
*C416 104P
*R445 22K
*R423 15K
IC401 TDA9800
C442 47/16
*C415 103
C441 1/50
TL401 M7T1(A)
*R421 82K
*R418 22K
*R424 560
C437 10/16
AGC ADJ.
VR401 47KB
*R415 10K
*C409 104
*R412 2.7K
C440 104
TPS 5.5MB
TPS 6MB
FL405
FL406
L407 10UH
*C417 8.2P
R490 220
L404 2.2U
R465 330
C438 2.2/50
FL408 SFE 5.5MB
FL407 SFE 5.5MB
C439 2.2/50
R488 8.2K
*R457 4.3K
*R404 270
*C407
*R409 390
103
L403 1.3U
*R403 5.6K
*C406 103
SAF
*C410 103
FL403 38.9MZW
Q406 C3197
*R405 1.5K
*R487 39
*R495 22
*C402 103
*R496 100
*C472 4.7P
*C405 4.7P
*C404 27P
*C473 27P
FL401 40.4MHZ
FL402 32.4MHZ
R461 1K
R460 1K
*R497 7.5K
*R498 7.5K
D408 1N4148
L414 100UH(A)
Q407 R1003
R462 820(1/4)
R463 1K
Q408 A928
Q403 C945
L401 27UH
*R416 330
*R422 150
*C408 22P
*R425 180
C425 4.7/50(NP)
C426 4.7/50(NP)
C427 47/16
*C413 103
C428 224
IC403 TDA8415
LOGIC
SUPPLY
SOURCE SELECTOR
I2C TRANS
OSC
AF SWITCH
XT01 10MHZ
*R453 100
*R454 100

NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

SPECIAL NOTE
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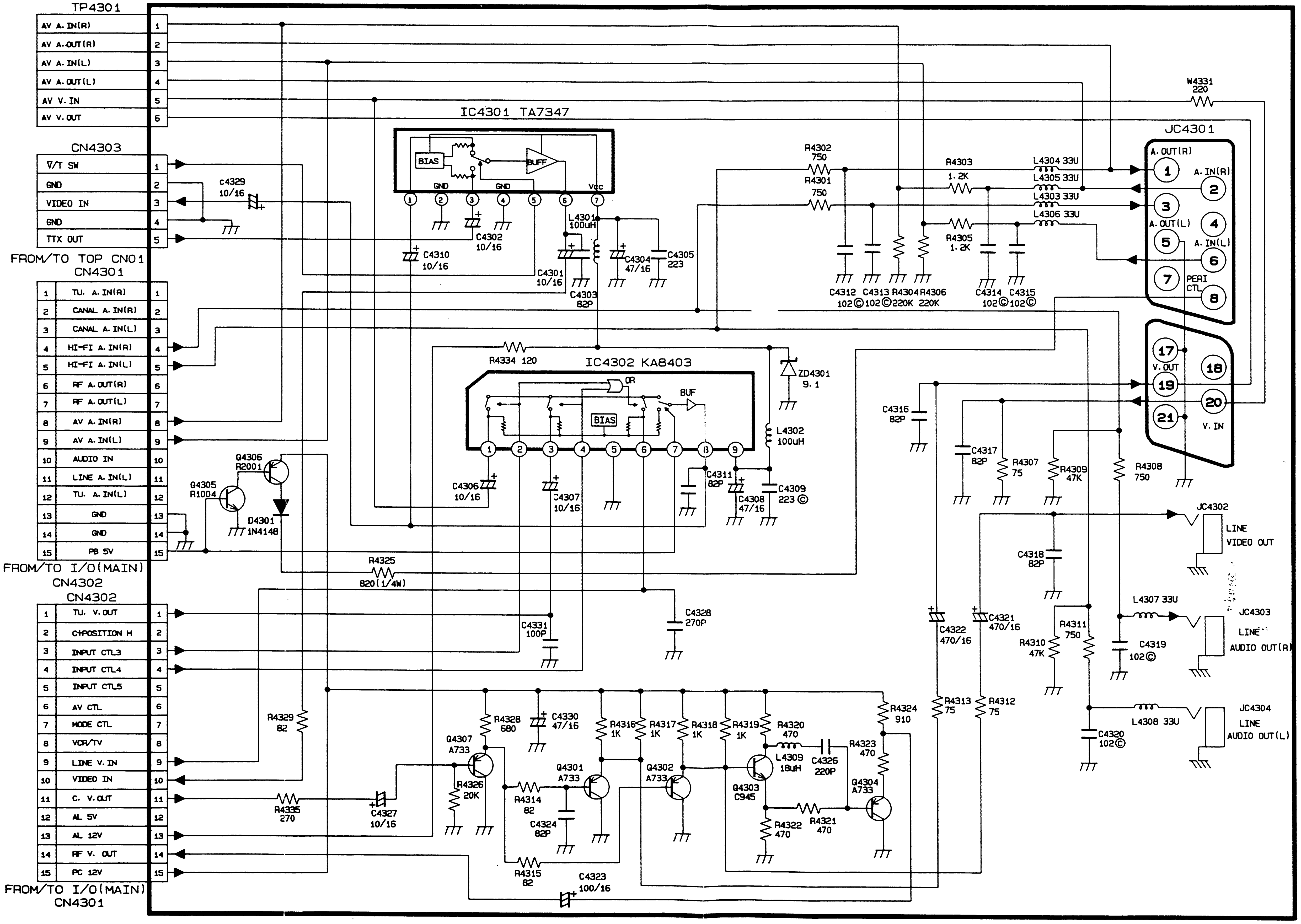
9-11. I/O (SUB PCB)


TP4301
AV A. IN(R)
AV A. OUT(R)
AV A. IN(L)
AV A. OUT(L)
AV V. IN
AV V. OUT
CN4303
V/T SW
GND
VIDEO IN
GND
TTX OUT
FROM/TO TOP CN01
CN4301
TU. A. IN(R)
CANAL A. IN(R)
CANAL A. IN(L)
HI-FI A. IN(R)
HI-FI A. IN(L)
RF A. OUT(R)
RF A. OUT(L)
AV A. IN(R)
AV A. IN(L)
AUDIO IN
LINE A. IN(L)
TU. A. IN(L)
GND
GND
PB 5V
FROM/TO I/O(MAIN)
CN4302
CN4302
TU. V. OUT
C-POSITION H
INPUT CTL3
INPUT CTL4
INPUT CTL5
AV CTL
MODE CTL
VCR/TV
LINE V. IN
VIDEO IN
C. V. OUT
AL 5V
AL 12V
RF V. OUT
PC 12V
FROM/TO I/O(MAIN)
CN4301
IC4301 TA7347
BIAS
BUFF
GND
GND
Vcc
C4329 10/16
C4310 10/16
C4302 10/16
L4301 100uH
C4301 10/16
C4303 82P
C4304 47/16
C4305 223
R4302 750
R4301 750
R4303 1.2K
R4305 1.2K
L4304 33U
L4305 33U
L4303 33U
L4306 33U
C4312 C4313 R4304 R4306
102Ⓒ 102Ⓒ 220K 220K
C4314 C4315
102Ⓒ 102Ⓒ
W4331 220
JC4301
A. OUT(R)
A. IN(R)
A. OUT(L)
A. IN(L)
PERI CTL
V. OUT
V. IN
R4334 120
IC4302 KA8403
OR
BUF
BIAS
ZD4301 9.1
L4302 100uH
C4306 10/16
C4307 10/16
C4311 82P
C4308 47/16
C4309 223Ⓒ
C4316 82P
C4317 82P
R4307 75
R4309 47K
R4308 750
Q4306 R2001
Q4305 R1004
D4301 1N4148
R4325 820(1/4W)
C4328 270P
C4331 100P
JC4302
LINE VIDEO OUT
C4318 82P
L4307 33U
JC4303
LINE AUDIO OUT(R)
C4322 470/16
C4321 470/16
R4311 750
R4310 47K
C4319 102Ⓒ
R4313 75
R4312 75
JC4304
LINE AUDIO OUT(L)
L4308 33U
C4320 102Ⓒ
R4329 82
R4328 680
C4330 47/16
R4316 1K
R4317 1K
R4318 1K
R4319 1K
R4320 470
R4324 910
Q4307 A733
R4326 20K
Q4301 A733
Q4302 A733
Q4303 C945
Q4304 A733
L4309 18uH
C4326 220P
R4323 470
R4314 82
C4324 82P
R4322 470
R4321 470
R4335 270
C4327 10/16
R4315 82
C4323 100/16

NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

SPECIAL NOTE
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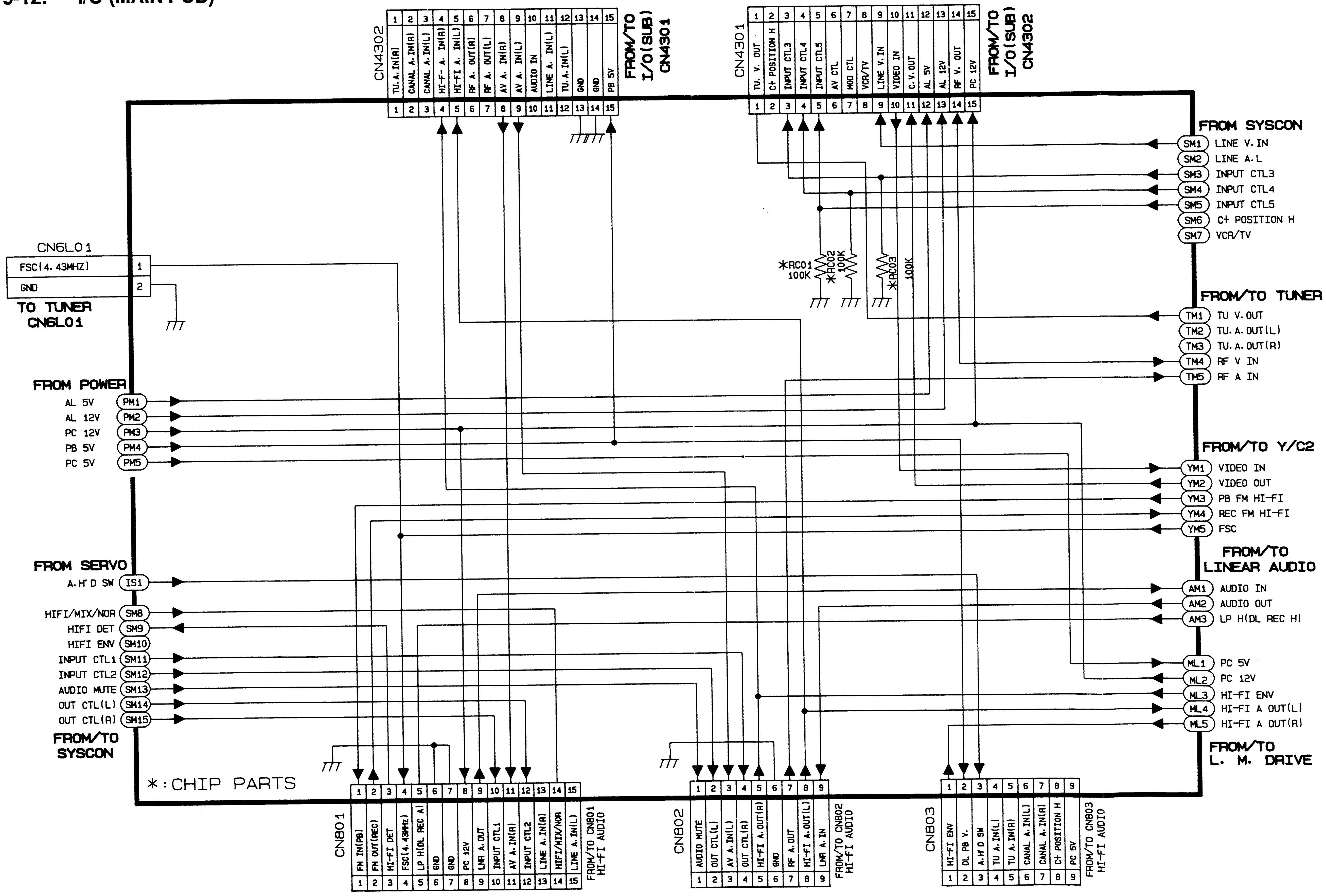
9-12. I/O (MAIN PCB)


CN4302
1 TU.A.IN(R)
2 CANAL A.IN(R)
3 CANAL A.IN(L)
4 HI-F- A. IN(R)
5 HI-FI A. IN(L)
6 RF A. OUT(R)
7 RF A. OUT(L)
8 AV A. IN(R)
9 AV A. IN(L)
10 AUDIO IN
11 LINE A. IN(L)
12 TU.A.IN(L)
13 GND
14 GND
15 PB 5V
FROM/TO I/O(SUB) CN4301
CN4301
1 TU. V. OUT
2 C+ POSITION H
3 INPUT CTL3
4 INPUT CTL4
5 INPUT CTL5
6 AV CTL
7 MOD CTL
8 VCR/TV
9 LINE V.IN
10 VIDEO IN
11 C.V.OUT
12 AL 5V
13 AL 12V
14 RF V. OUT
15 PC 12V
FROM/TO I/O(SUB) CN4302
*RC01 100K
*RC02 100K
*RC03 100K
FROM SYSCON
SM1 LINE V.IN
SM2 LINE A.L
SM3 INPUT CTL3
SM4 INPUT CTL4
SM5 INPUT CTL5
SM6 C+ POSITION H
SM7 VCR/TV
FROM/TO TUNER
TM1 TU V.OUT
TM2 TU.A.OUT(L)
TM3 TU.A.OUT(R)
TM4 RF V IN
TM5 RF A IN
FROM/TO Y/C2
YM1 VIDEO IN
YM2 VIDEO OUT
YM3 PB FM HI-FI
YM4 REC FM HI-FI
YM5 FSC
FROM/TO LINEAR AUDIO
AM1 AUDIO IN
AM2 AUDIO OUT
AM3 LP H(DL REC H)
ML1 PC 5V
ML2 PC 12V
ML3 HI-FI ENV
ML4 HI-FI A OUT(L)
ML5 HI-FI A OUT(R)
FROM/TO L. M. DRIVE
CN6L01
1 FSC(4.43MHZ)
2 GND
TO TUNER CN6L01
FROM POWER
AL 5V PM1
AL 12V PM2
PC 12V PM3
PB 5V PM4
PC 5V PM5
FROM SERVO
A.H'D SW IS1
HIFI/MIX/NOR SM8
HIFI DET SM9
HIFI ENV SM10
INPUT CTL1 SM11
INPUT CTL2 SM12
AUDIO MUTE SM13
OUT CTL(L) SM14
OUT CTL(R) SM15
FROM/TO SYSCON
*:CHIP PARTS
CN801
1 FM IN(PB)
2 FM OUT(REC)
3 HI-FI DET
4 FSC(4.43MHz)
5 LP H(DL REC A)
6 GND
7 GND
8 PC 12V
9 LNR A.OUT
10 INPUT CTL1
11 AV A.IN(R)
12 INPUT CTL2
13 LINE A.IN(R)
14 HIFI/MIX/NOR
15 LINE A.IN(L)
FROM/TO CN801 HI-FI AUDIO
CN802
1 AUDIO MUTE
2 OUT CTL(L)
3 AV A.IN(L)
4 OUT CTL(R)
5 HI-FI A.OUT(R)
6 GND
7 RF A.OUT
8 HI-FI A.OUT(L)
9 LNR A.IN
FROM/TO CN802 HI-FI AUDIO
CN803
1 HI-FI ENV
2 DL PB V.
3 A.H'D SW
4 TU A.IN(L)
5 TU A.IN(R)
6 CANAL A.IN(L)
7 CANAL A.IN(R)
8 C+ POSITION H
9 PC 5V
FROM/TO CN803 HI-FI AUDIO

NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

SPECIAL NOTE
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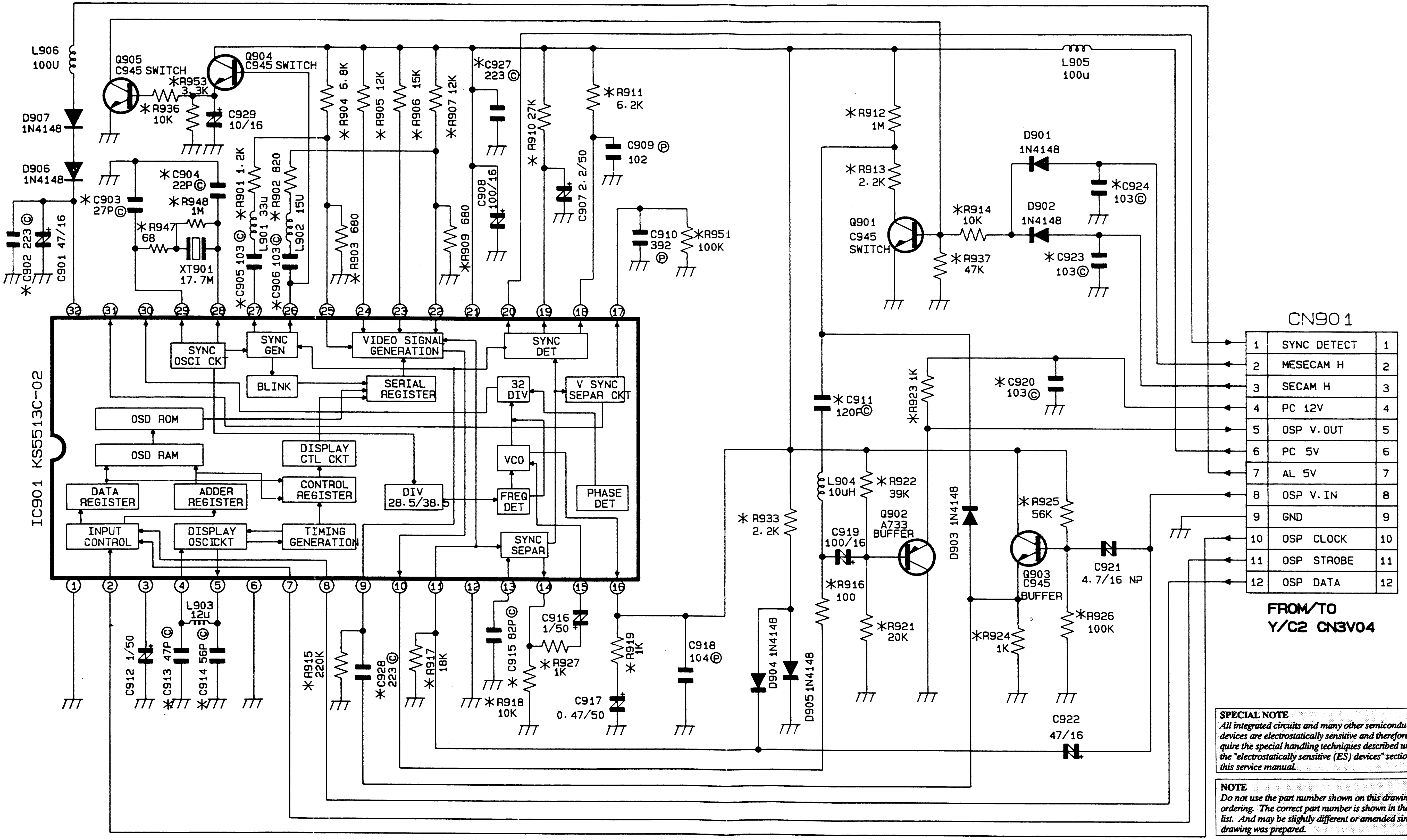
9-13. O.S.P


L906
100U
D907
1N4148
D906
1N4148
Q905
C945 SWITCH
✱R953
3.3K
✱R936
10K
Q904
C945 SWITCH
C929
10/16
✱C904
22P©
✱C903
27P©
✱R948
1M
✱R947
68
XT901
17.7M
✱C902 223©
C901 47/16
✱R901 1.2K
L901 33u
✱C905 103©
✱R902 820
L902 15U
✱C906 103©
✱R904 6.8K
✱R905 12K
✱R906 15K
✱R907 12K
✱R903 680
✱R909 680
✱C927
223©
C908 100/16
✱R910 27K
C907 2.2/50
✱R911
6.2K
C909 Ⓟ
102
C910
392
Ⓟ
✱R951
100K
L905
100u
✱R912
1M
✱R913
2.2K
Q901
C945
SWITCH
✱R914
10K
✱R937
47K
D901
1N4148
D902
1N4148
✱C924
103©
✱C923
103©
IC901 KS5513C-02
SYNC OSCI CKT
SYNC GEN
VIDEO SIGNAL GENERATION
SYNC DET
BLINK
SERIAL REGISTER
32 DIV
V SYNC SEPAR CKT
OSD ROM
OSD RAM
DISPLAY CTL CKT
VCO
CONTROL REGISTER
DATA REGISTER
ADDER REGISTER
DIV 28.5/38.5
FREQ DET
PHASE DET
INPUT CONTROL
DISPLAY OSCI CKT
TIMING GENERATION
SYNC SEPAR
L903
12u
C912 1/50
✱C913 47P©
✱C914 56P©
✱R915 220K
✱C928 223©
✱R917 18K
✱C915 82P©
✱R918
10K
C916
1/50
✱R927
1K
C917
0.47/50
✱R919 1K
C918
104Ⓟ
✱C911
120P©
L904
10uH
✱R922
39K
Q902
A733
BUFFER
C919
100/16
✱R916
100
✱R921
20K
✱R933
2.2K
D904 1N4148
D905 1N4148
✱R923 1K
✱C920
103©
D903 1N4148
✱R925
56K
Q903
C945
BUFFER
C921
4.7/16 NP
✱R924
1K
✱R926
100K
C922
47/16
CN901
FROM/TO
Y/C2 CN3V04

1	SYNC DETECT	1
2	MESECAM H	2
3	SECAM H	3
4	PC 12V	4
5	OSP V.OUT	5
6	PC 5V	6
7	AL 5V	7
8	OSP V.IN	8
9	GND	9
10	OSP CLOCK	10
11	OSP STROBE	11
12	OSP DATA	12

SPECIAL NOTE
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NOTE
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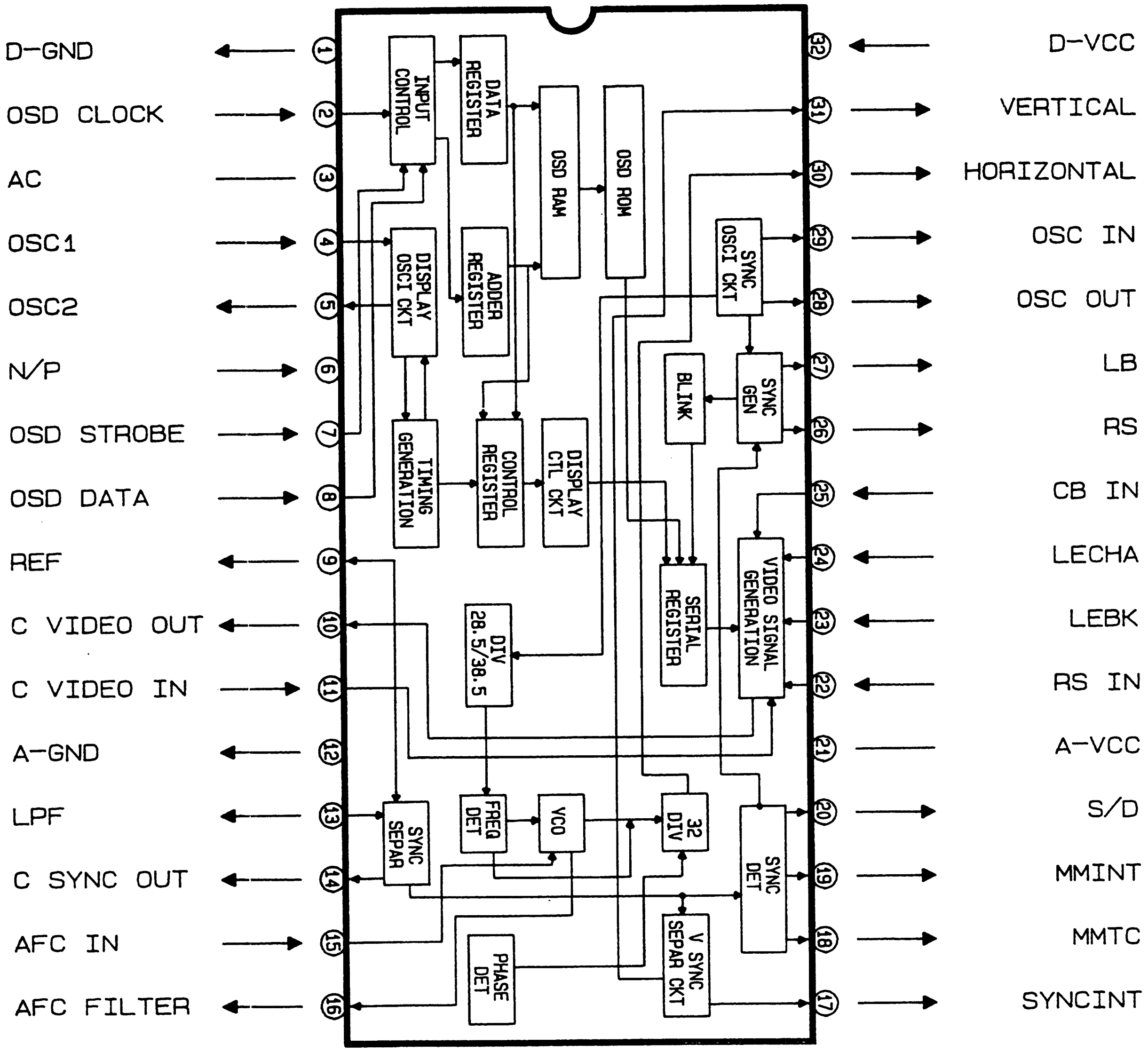
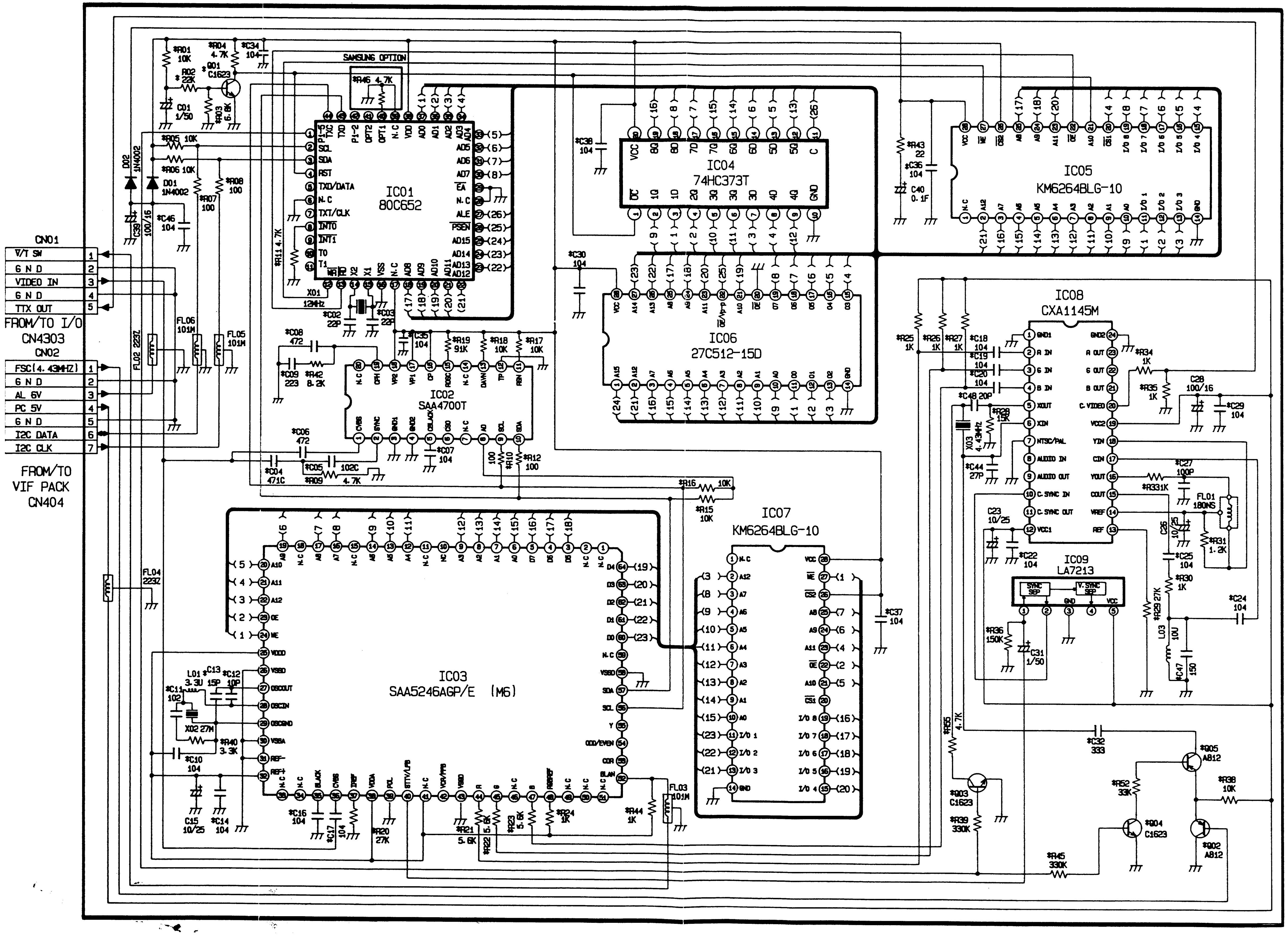
✱: CHIP PARTS

IC901		
MODE / PIN NO	SIGNAL OUT	BLUE OUT
1	0	0
2	0~4.4	0~4.4
3	3.6	3.6
4	–	–
5	–	–
6	0	0
7	4.4	4.4
8	0	0
9	–	1.6
10	–	–
11	–	0.6
12	0	0
13	–	1.7
14	0.1~4.1	4.0
15	0.3~2.9	0
16	2.2	2.3
17	–	4.8
18	–	0.5
19	1.75	5.0
20	0	0
21	5.0	5.0
22	0.8	
23	0.8	0.8
24	2.2	2.1
25	0.6	0.6
26	0	
27	0	0
28	–	–
29	–	–
30	0~3.7	0~3.7
31	0~3.7	0~3.7
32	3.7	3.7

IC901 KS5513B


D-GND ①
OSD CLOCK ②
AC ③
OSC1 ④
OSC2 ⑤
N/P ⑥
OSD STROBE ⑦
OSD DATA ⑧
REF ⑨
C VIDEO OUT ⑩
C VIDEO IN ⑪
A-GND ⑫
LPF ⑬
C SYNC OUT ⑭
AFC IN ⑮
AFC FILTER ⑯
㉜ D-VCC
㉛ VERTICAL
㉚ HORIZONTAL
㉙ OSC IN
㉘ OSC OUT
㉗ LB
㉖ RS
㉕ CB IN
㉔ LECHA
㉓ LEBK
㉒ RS IN
㉑ A-VCC
⑳ S/D
⑲ MMINT
⑱ MMTC
⑰ SYNCINT
INPUT CONTROL
DATA REGISTER
OSD RAM
OSD ROM
DISPLAY OSCI CKT
ADDER REGISTER
SYNC OSCI CKT
BLINK
SYNC GEN
TIMING GENERATION
CONTROL REGISTER
DISPLAY CTL CKT
SERIAL REGISTER
VIDEO SIGNAL GENERATION
DIV 28.5/38.5
SYNC SEPAR
FREQ DET
VCO
32 DIV
SYNC DET
V SYNC SEPAR CKT
PHASE DET

9-14. T.O.P


CN01
V/T SW
GND
VIDEO IN
GND
TTX OUT
FROM/TO I/O
CN4303
CN02
FSC(4.43MHZ)
GND
AL 6V
PC 5V
GND
I2C DATA
I2C CLK
FROM/TO
VIF PACK
CN404
IC01
80C652
IC02
SAA4700T
IC03
SAA5246AGP/E (M6)
IC04
74HC373T
IC05
KM6264BLG-10
IC06
27C512-15D
IC07
KM6264BLG-10
IC08
CXA1145M
IC09
LA7213
SAMSUNG OPTION
R46 4.7K
Q01 C1623
Q03 C1623
Q04 C1623
Q05 A812
Q02 A812
D01 1N4002
D02 1N4002
X01 12MHz
X02 27M
X03 4.43MHz
FL01 180NS
FL02 223Z
FL03 101M
FL04 223Z
FL05 101M
FL06 101M
L01 3.3U
L03 10U

NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

SPECIAL NOTE
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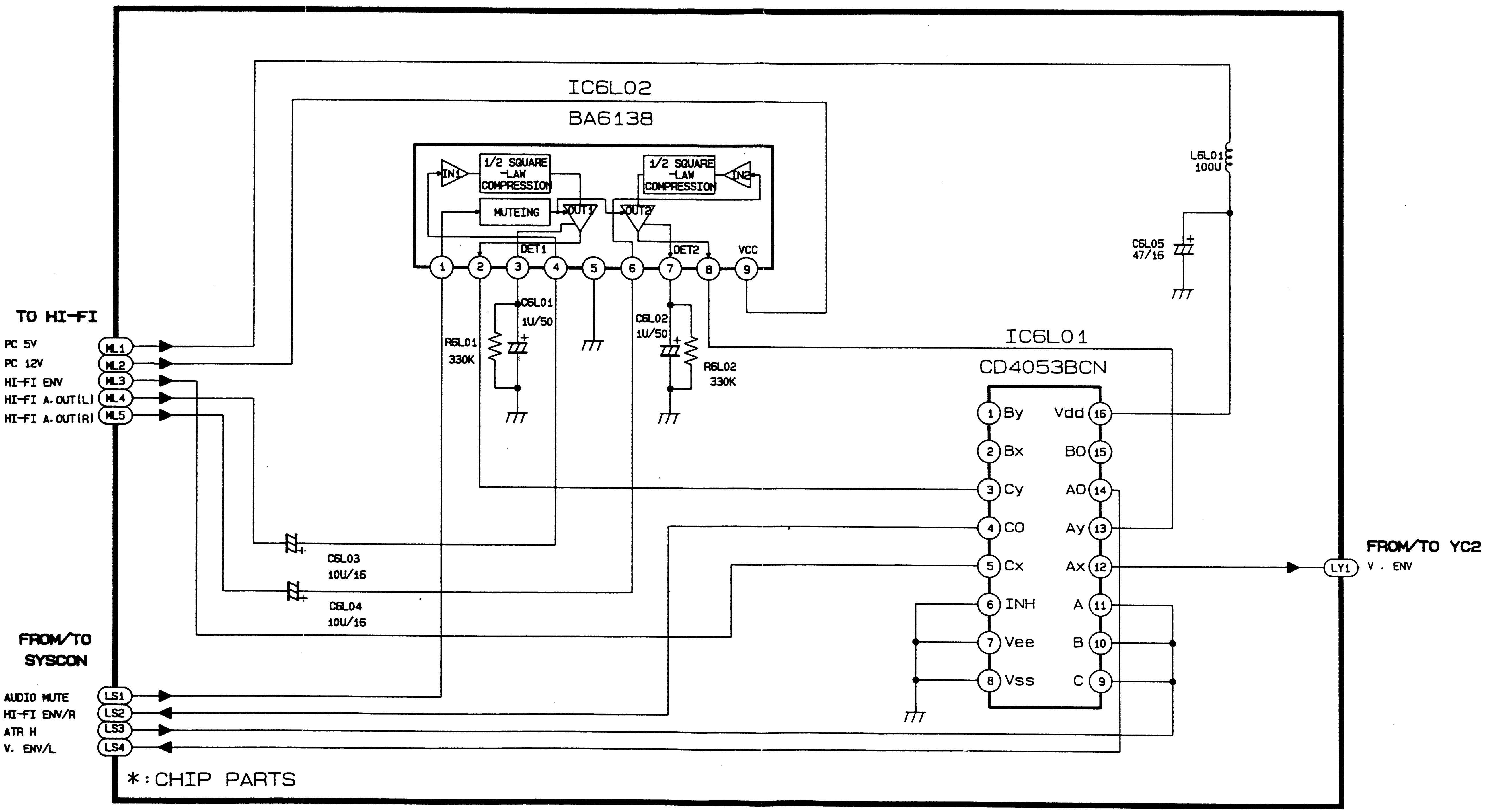
IC01					
MODE PIN NO	E-E	TEXT	MODE PIN NO	E-E	TEXT
1	5	0	23	0 - 5	0 - 5
2	0 - 5	0 - 5	24	0 - 5	0 - 5
3	0 - 5	0 - 5	25	0 - 5	0 - 5
4	0	0	26	0 - 5	0 - 5
5	5	5	27	0 - 5	0 - 5
6	-	-	28	-	-
7	5	5	29	0 - 5	0 - 5
8	0	0	30	0 - 5	0 - 5
9	5	5	31	0 - 5	0 - 5
10	5	5	32	0 - 5	0 - 5
11	5	5	33	0 - 5	0 - 5
12	0 - 5	0 - 5	34	0 - 5	0 - 5
13	0 - 5	0 - 5	35	0 - 5	0 - 5
14	0 - 5	0 - 5	36	0 - 5	0 - 5
15	0.6 - 3.2	0.6 - 3.2	37	0 - 5	0 - 5
16	0	0	38	5	5
17	-	-	39	-	-
18	0 - 5	0 - 5	40	5	5
19	0 - 5	0 - 5	41	5	5
20	0 - 5	0 - 5	42	5	5
21	0 - 5	0 - 5	43	0 - 5	0 - 5
22	0 - 5	0 - 5	44	0 - 5	0 - 5

IC02		
MODE PIN NO	E-E	TEXT
1	2.2 - 2.8	2.2 - 2.8
2	2 - 3	2 - 3
3	0	0
4	0	0
5	4.6	4.6
6	0 - 4	0 - 4
7	-	-
8	5	5
9	0 - 5	0 - 5
10	0 - 5	0 - 5
11	5	5
12	0	0
13	5	5
14	-	-
15	0.8	0.8
16	5	5
17	5	5
18	5	5
19	1.2 - 1.8	1.2 - 1.8
20	-	-

IC03					
MODE PIN NO	E-E	TEXT	MODE PIN NO	E-E	TEXT
1	-	-	33	-	-
2	-	-	34	-	-
3	0 - 5	0 - 5	35	2	2
4	0 - 5	0 - 5	36	1.8 - 2.8	1.8 - 2.8
5	0 - 5	0 - 5	37	2.5	2.5
6	0 - 5	0 - 5	38	5	5
7	0 - 5	0 - 5	39	0	0
8	0 - 5	0 - 5	40	1.8 - 2.8	1.8 - 2.2
9	0 - 5	0 - 5	41	-	-
10	-	-	42	0	0
11	-	-	43	0	0
12	0 - 5	0 - 5	44	0	0 - 5
13	0 - 5	0 - 5	45	0	0 - 5
14	0 - 5	0 - 5	46	-	-
15	0 - 5	0 - 5	47	0	0
16	0 - 5	0 - 5	48	5	5
17	0 - 5	0 - 5	49	-	-
18	-	-	50	-	-
19	0 - 5	0 - 5	51	-	-
20	0 - 5	0 - 5	52	0	5
21	0 - 5	0 - 5	53	0	0
22	0 - 5	0 - 5	54	0 - 5	0 - 5
23	0 - 5	0 - 5	55	0	0
24	0 - 5	0 - 5	56	0 - 5	0 - 5
25	5	5	57	0 - 5	0 - 5
26	0	0	58	0	0
27	2 - 2.5	2 - 2.5	59	0 - 5	0 - 5
28	3.4	3.4	60	0 - 5	0 - 5
29	-	-	61	0 - 5	0 - 5
30	0	0	62	0 - 5	0 - 5
31	0	0	63	0 - 5	0 - 5
32	5	5	64	0 - 5	0 - 5

IC08		
MODE PIN NO	E-E	TEXT
1	0	0
2	2	2 - 2.8
3	2	2
4	2	2
5	3.3 - 3.8	3.3 - 3.8
6	2.8 - 3.4	2.8 - 3.4
7	0	0
8	2.5	2.5
9	2.5	2.5
10	0 - 5	0 - 5
11	1.8 - 2.9	1.8 - 2.9
12	5	5
13	1.2	1.2
14	2	2
15	2.5	2.5
16	1.6 - 2	1.6 - 2
17	2.2	2.2
18	1.7 - 2	1.7 - 2
19	5	5
20	1.5 - 3.5	1.5 - 2.2
21	2	2
22	2	2
23	2	2
24	-	-

9-15. Level Meter Drive


IC6L02
BA6138
1/2 SQUARE -LAW COMPRESSION
IN1
MUTEING
OUT1
1/2 SQUARE -LAW COMPRESSION
IN2
OUT2
DET1
DET2
VCC
1
2
3
4
5
6
7
8
9
L6L01
100U
C6L05
47/16
C6L01
1U/50
R6L01
330K
C6L02
1U/50
R6L02
330K
TO HI-FI
PC 5V
PC 12V
HI-FI ENV
HI-FI A.OUT(L)
HI-FI A.OUT(R)
ML1
ML2
ML3
ML4
ML5
IC6L01
CD4053BCN
1 By
2 Bx
3 Cy
4 CO
5 Cx
6 INH
7 Vee
8 Vss
Vdd 16
BO 15
AO 14
Ay 13
Ax 12
A 11
B 10
C 9
C6L03
10U/16
C6L04
10U/16
FROM/TO YC2
LY1
V. ENV
FROM/TO SYSCON
AUDIO MUTE
HI-FI ENV/R
ATR H
V. ENV/L
LS1
LS2
LS3
LS4
*: CHIP PARTS

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NOTE
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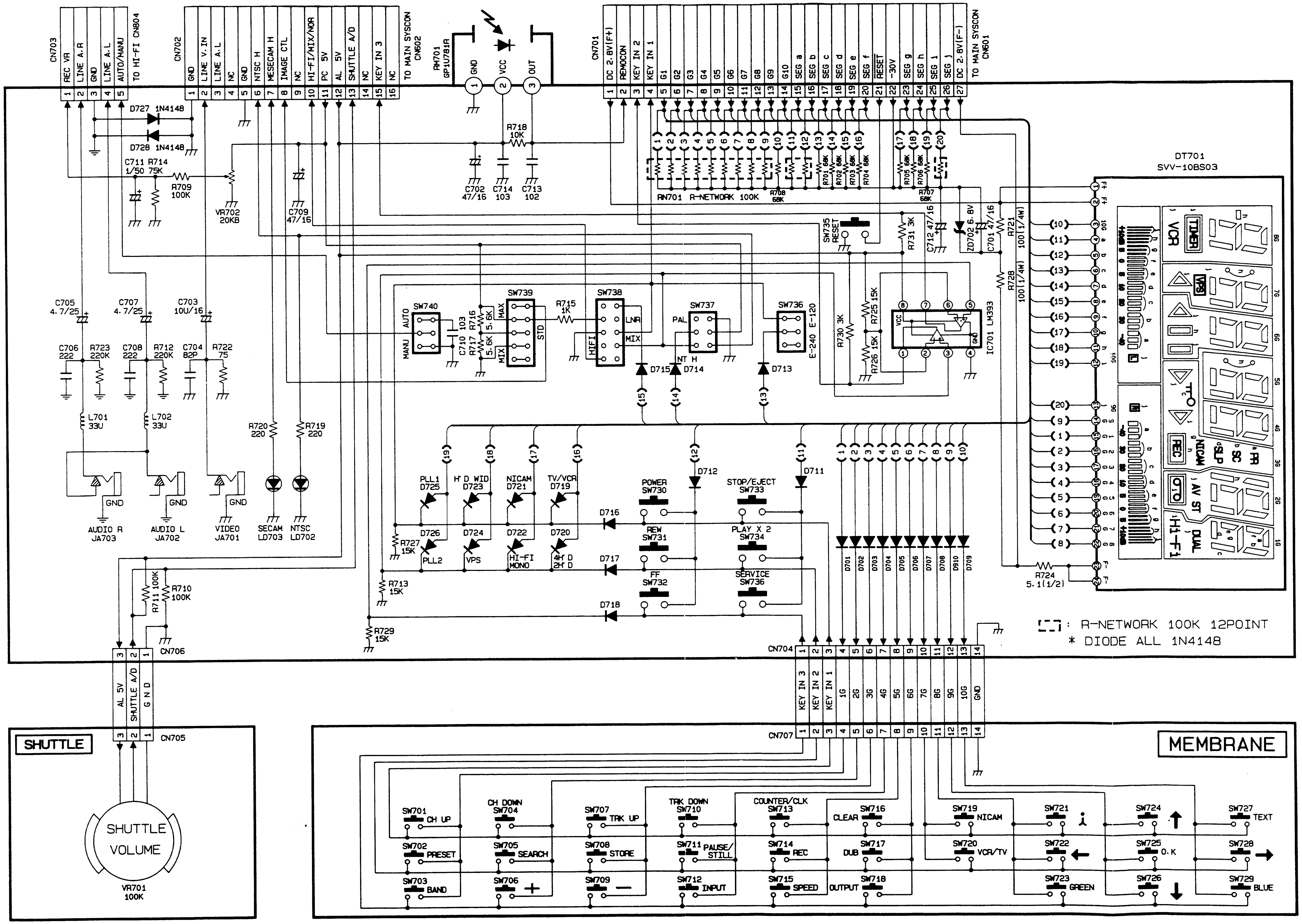
9-16. Timer


CN703
REC VR
LINE A.R
GND
LINE A.L
AUTO/MANU
TO HI-FI CN804
CN702
GND
LINE V.IN
LINE A.L
NC
GND
NTSC H
MESECAM H
IMAGE CTL
NC
HI-FI/MIX/NOR
PC 5V
AL 5V
SHUTTLE A/D
NC
KEY IN 3
NC
TO MAIN SYSCON CN602
RM701 GP1U781R
GND
VCC
OUT
CN701
DC 2.8V(F+)
REMOCON
KEY IN 2
KEY IN 1
G1
G2
G3
G4
G5
G6
G7
G8
G9
G10
SEG a
SEG b
SEG c
SEG d
SEG e
SEG f
RESET
-30V
SEG g
SEG h
SEG i
SEG j
DC 2.8V(F-)
TO MAIN SYSCON CN601
D727 1N4148
D728 1N4148
C711 1/50
R714 75K
R709 100K
VR702 20KB
R718 10K
C702 47/16
C714 103
C713 102
C709 47/16
RN701 R-NETWORK 100K
R708 68K
R707 68K
SW735 RESET
R731 3K
C712 47/16
ZD702 6.8V
C701 47/16
R721 100(1/4W)
R728 100(1/4W)
DT701 SVV-10BS03
VCR
TIMER
VPS
REC
OTO
NICAM
SLP
SC
PR
AV
ST
DUAL
Hi-Fi
C705 4.7/25
C707 4.7/25
C703 10U/16
C706 222
R723 220K
C708 222
R712 220K
C704 82P
R722 75
L701 33U
L702 33U
SW740
AUTO
MANU
C710 103
R717 5.6K
R716 5.6K
SW739
MAX
STD
MIX
R715 1K
SW738
LNR
MIX
HIFI
SW737
PAL
NT H
SW736
E-240 E-120
R730 3K
R725 15K
R726 15K
IC701 LM393
D715
D714
D713
R720 220
R719 220
AUDIO R JA703
AUDIO L JA702
VIDEO JA701
SECAM LD703
NTSC LD702
PLL1 D725
H'D WID D723
NICAM D721
TV/VCR D719
D726
D724
D722
D720
PLL2
VPS
HI-FI MONO
4H D 2H D
R727 15K
R713 15K
R729 15K
R711 100K
R710 100K
D712
D711
POWER SW730
STOP/EJECT SW733
D716
REW SW731
PLAY X 2 SW734
D717
FF SW732
SERVICE SW736
D718
D701
D702
D703
D704
D705
D706
D707
D708
D910
D709
R724 5.1(1/2)
R-NETWORK 100K 12POINT
* DIODE ALL 1N4148
CN706
CN704
KEY IN 3
KEY IN 2
KEY IN 1
1G
2G
3G
4G
5G
6G
7G
8G
9G
10G
GND
AL 5V
SHUTTLE A/D
GND
CN705
SHUTTLE
SHUTTLE VOLUME
VR701 100K
CN707
MEMBRANE
SW701 CH UP
SW702 PRESET
SW703 BAND
CH DOWN SW704
SW705 SEARCH
SW706 +
SW707 TRK UP
SW708 STORE
SW709 —
TRK DOWN SW710
SW711 PAUSE/STILL
SW712 INPUT
COUNTER/CLK SW713
SW714 REC
SW715 SPEED
SW716 CLEAR
SW717 DUB
SW718 OUTPUT
SW719 NICAM
SW720 VCR/TV
SW721 i
SW722 ←
SW723 GREEN
SW724 ↑
SW725 O.K
SW726 ↓
SW727 TEXT
SW728 →
SW729 BLUE

NOTE
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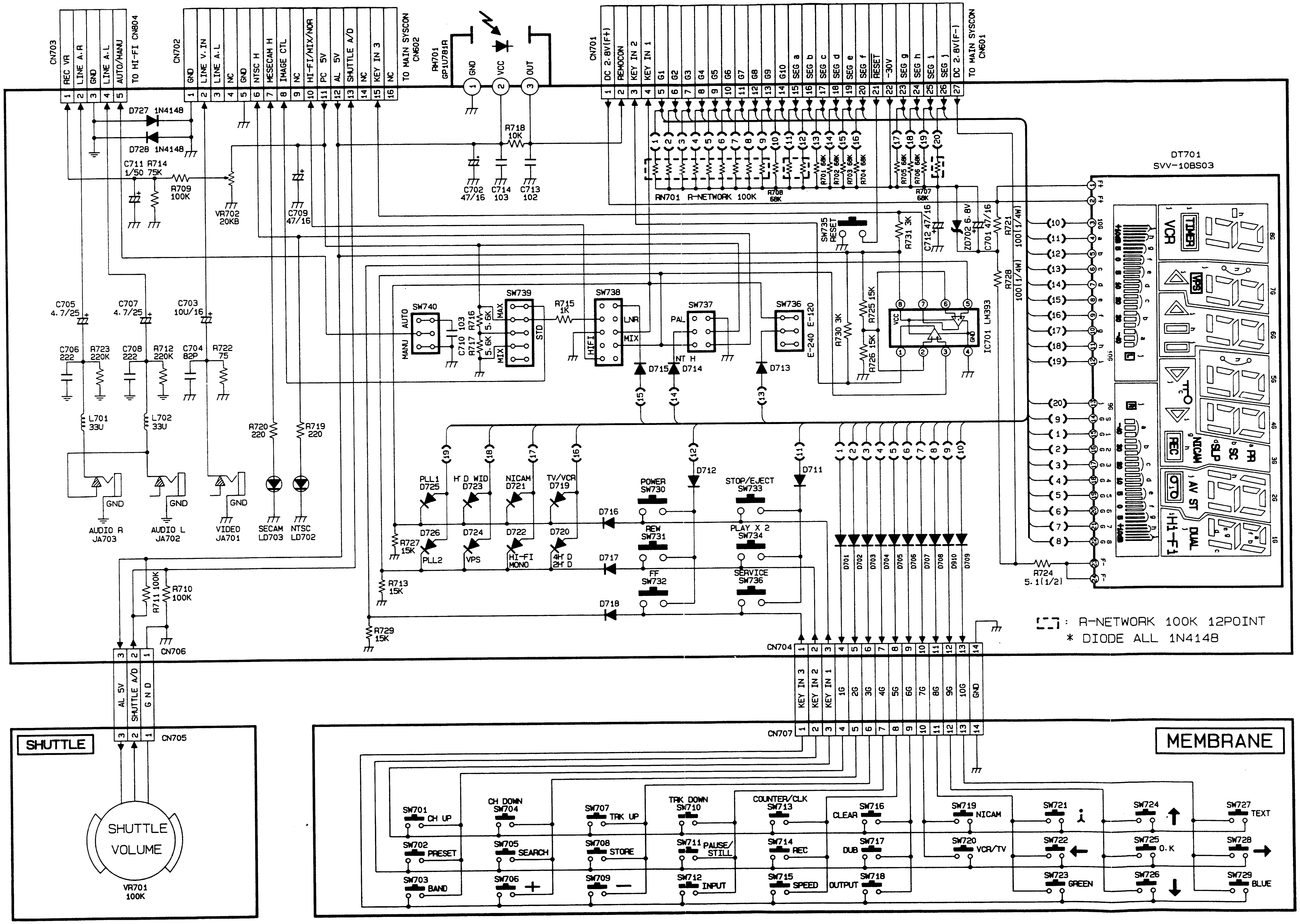
9-16. Timer


CN703
REC VR
LINE A.R
GND
LINE A.L
AUTO/MANU
TO HI-FI CN804
CN702
GND
LINE V.IN
LINE A.L
NC
GND
NTSC H
MESECAM H
IMAGE CTL
NC
HI-FI/MIX/NOR
PC 5V
AL 5V
SHUTTLE A/D
NC
KEY IN 3
NC
TO MAIN SYSCON CN602
RM701 GP1U781R
GND
VCC
OUT
CN701
DC 2.8V(F+)
REMOCON
KEY IN 2
KEY IN 1
G1
G2
G3
G4
G5
G6
G7
G8
G9
G10
SEG a
SEG b
SEG c
SEG d
SEG e
SEG f
RESET
-30V
SEG g
SEG h
SEG i
SEG j
DC 2.8V(F-)
TO MAIN SYSCON CN601
D727 1N4148
D728 1N4148
C711 1/50
R714 75K
R709 100K
R718 10K
C702 47/16
C714 103
C713 102
VR702 20KB
C709 47/16
RN701 R-NETWORK 100K
R708 68K
R707 68K
DT701 SVV-10BS03
SW735 RESET
R731 3K
C712 47/16
ZD702 6.8V
C701 47/16
R721 100(1/4W)
R728 100(1/4W)
C705 4.7/25
C707 4.7/25
C703 10U/16
C706 222
R723 220K
C708 222
R712 220K
C704 82P
R722 75
L701 33U
L702 33U
SW740
AUTO
MANU
C710 103
R716 5.6K
R717 5.6K
SW739
MAX
STD
MIX
R715 1K
SW738
LNR
MIX
HIFI
SW737
PAL
NT H
SW736
E-240 E-120
R730 3K
R725 15K
R726 15K
IC701 LM393
VCC
GND
D715
D714
D713
R720 220
R719 220
AUDIO R JA703
AUDIO L JA702
VIDEO JA701
SECAM LD703
NTSC LD702
PLL1 D725
H D WID D723
NICAM D721
TV/VCR D719
D726
D724
D722
D720
R727 15K
PLL2
VPS
HI-FI MONO
4H D 2H D
D716
D717
D718
POWER SW730
REW SW731
FF SW732
D712
D711
STOP/EJECT SW733
PLAY X 2 SW734
SERVICE SW736
R713 15K
R729 15K
R711 100K
R710 100K
CN706
D701
D702
D703
D704
D705
D706
D707
D708
D910
D709
R724 5.1(1/2)
TIMER
VCR
VPS
REC
NICAM
SLP
SC
PR
OTO
AV
ST
DUAL
Hi-Fi
┌-┐ : R-NETWORK 100K 12POINT
* DIODE ALL 1N4148
CN704
KEY IN 3
KEY IN 2
KEY IN 1
1G
2G
3G
4G
5G
6G
7G
8G
9G
10G
GND
AL 5V
SHUTTLE A/D
GND
CN705
SHUTTLE
SHUTTLE VOLUME
VR701 100K
CN707
MEMBRANE
SW701 CH UP
SW702 PRESET
SW703 BAND
CH DOWN SW704
SW705 SEARCH
SW706 +
SW707 TRK UP
SW708 STORE
SW709 —
TRK DOWN SW710
SW711 PAUSE/STILL
SW712 INPUT
COUNTER/CLK SW713
SW714 REC
SW715 SPEED
CLEAR SW716
DUB SW717
OUTPUT SW718
SW719 NICAM
SW720 VCR/TV
SW721 i
SW722 ←
SW723 GREEN
SW724 ↑
SW725 O.K
SW726 ↓
SW727 TEXT
SW728 →
SW729 BLUE

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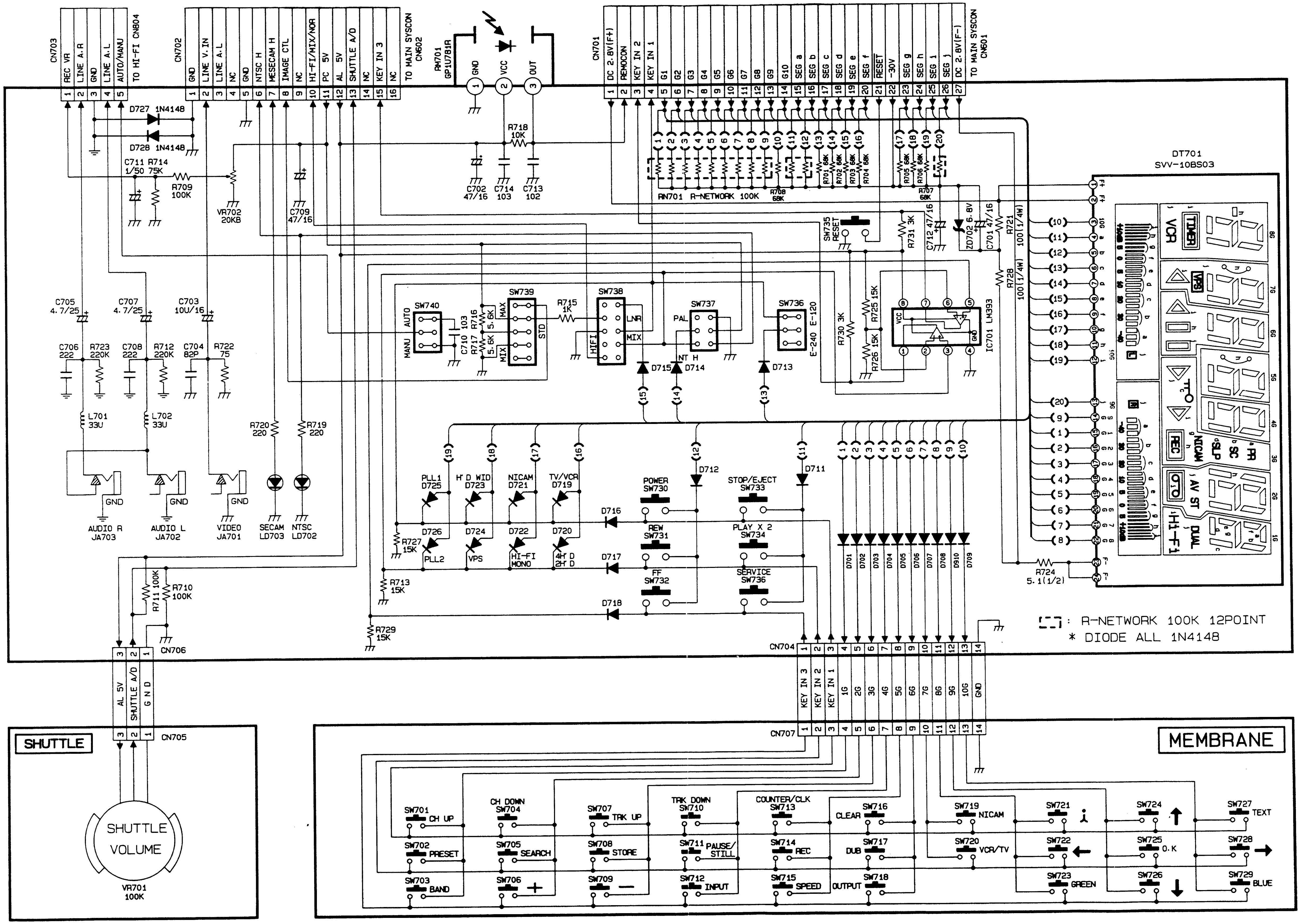
9-16. Timer


CN703
1 REC VR
2 LINE A.R
3 GND
4 LINE A.L
5 AUTO/MANU
TO HI-FI CN804
CN702
1 GND
2 LINE V.IN
3 LINE A.L
4 NC
5 GND
6 NTSC H
7 MESECAM H
8 IMAGE CTL
9 NC
10 HI-FI/MIX/NOR
11 PC 5V
12 AL 5V
13 SHUTTLE A/D
14 NC
15 KEY IN 3
16 NC
TO MAIN SYSCON CN602
RM701 GP1U781R
1 GND
2 VCC
3 OUT
CN701
1 DC 2.8V(F+)
2 REMOCON
3 KEY IN 2
4 KEY IN 1
5 G1
6 G2
7 G3
8 G4
9 G5
10 G6
11 G7
12 G8
13 G9
14 G10
15 SEG a
16 SEG b
17 SEG c
18 SEG d
19 SEG e
20 SEG f
21 RESET
22 -30V
23 SEG g
24 SEG h
25 SEG i
26 SEG j
27 DC 2.8V(F-)
TO MAIN SYSCON CN601
D727 1N4148
D728 1N4148
C711 1/50
R714 75K
R709 100K
VR702 20KB
C709 47/16
R718 10K
C702 47/16
C714 103
C713 102
RN701 R-NETWORK 100K
R708 68K
R707 68K
R701 68K
R702 68K
R703 68K
R704 68K
R705 68K
R706 68K
DT701 SVV-10BS03
SW735 RESET
R731 3K
C712 47/16
ZD702 6.8V
C701 47/16
R721 100(1/4W)
R728 100(1/4W)
IC701 LM393
VCC
GND
R730 3K
R725 15K
R726 15K
SW736 E-240 E-120
SW737 PAL NT H
SW738 LNR MIX HIFI
R715 1K
SW739 MAX STD MIX
R716 5.6K
R717 5.6K
C710 103
SW740 AUTO MANU
D713
D714
D715
C705 4.7/25
C707 4.7/25
C703 10U/16
C706 222
R723 220K
C708 222
R712 220K
C704 82P
R722 75
L701 33U
L702 33U
R720 220
R719 220
GND
AUDIO R JA703
AUDIO L JA702
VIDEO JA701
SECAM LD703
NTSC LD702
PLL1 D725
H D WID D723
NICAM D721
TV/VCR D719
D726 PLL2
D724 VPS
D722 HI-FI MONO
D720 4H D 2H D
R727 15K
POWER SW730
REW SW731
FF SW732
STOP/EJECT SW733
PLAY X 2 SW734
SERVICE SW736
D711
D712
D716
D717
D718
D701
D702
D703
D704
D705
D706
D707
D708
D709
D710
R713 15K
R729 15K
R711 100K
R710 100K
CN706
AL 5V
SHUTTLE A/D
G N D
R724 5.1(1/2)
VCR
TIMER
VPS
SC
SLP
NICAM
REC
AV ST
DUAL
Hi-Fi
F+
F-
1G
2G
3G
4G
5G
6G
7G
8G
9G
10G
CN704
KEY IN 3
KEY IN 2
KEY IN 1
1G
2G
3G
4G
5G
6G
7G
8G
9G
10G
GND
[ ] : R-NETWORK 100K 12POINT
* DIODE ALL 1N4148
SHUTTLE
CN705
SHUTTLE VOLUME
VR701 100K
MEMBRANE
CN707
SW701 CH UP
SW702 PRESET
SW703 BAND
CH DOWN SW704
SW705 SEARCH
SW706 +
SW707 TRK UP
SW708 STORE
SW709 −
TRK DOWN SW710
SW711 PAUSE/STILL
SW712 INPUT
COUNTER/CLK SW713
SW714 REC
SW715 SPEED
CLEAR SW716
DUB SW717
OUTPUT SW718
SW719 NICAM
SW720 VCR/TV
SW721 i
SW722 ←
SW723 GREEN
SW724 ↑
SW725 O.K
SW726 ↓
SW727 TEXT
SW728 →
SW729 BLUE

NOTE
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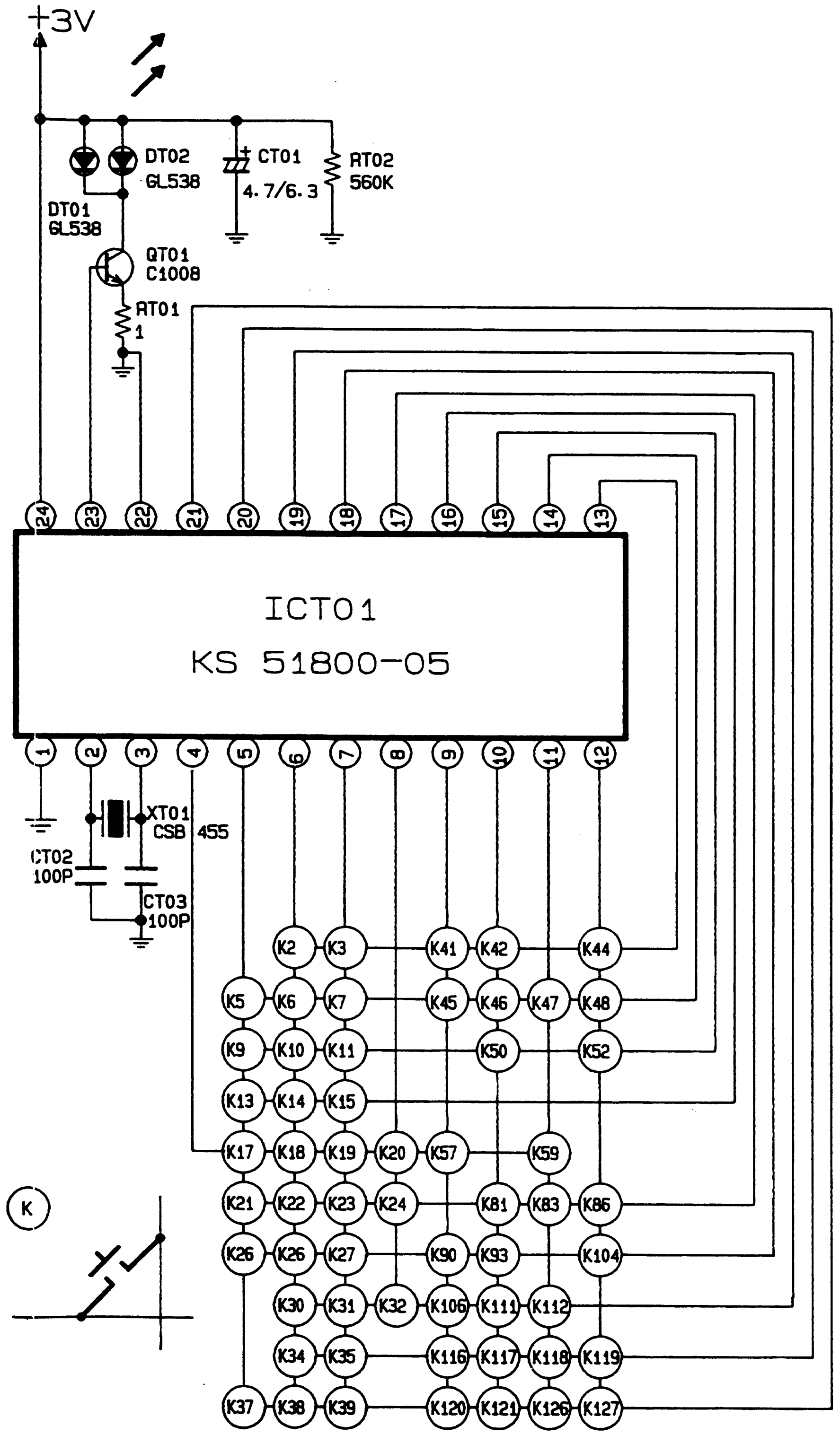
9-17. Remote Control


+3V
DT01
GL538
DT02
GL538
CT01
4.7/6.3
RT02
560K
QT01
C1008
RT01
1
ICT01
KS 51800-05
XT01
CSB 455
CT02
100P
CT03
100P
K
K2
K3
K5
K6
K7
K9
K10
K11
K13
K14
K15
K17
K18
K19
K20
K21
K22
K23
K24
K26
K27
K30
K31
K32
K34
K35
K37
K38
K39
K41
K42
K44
K45
K46
K47
K48
K50
K52
K57
K59
K81
K83
K86
K90
K93
K104
K106
K111
K112
K116
K117
K118
K119
K120
K121
K126
K127

	KEY NAME
K2	VCR/TV
K3	POWER
K5	1
K6	2
K7	3
K9	4
K10	5
K11	6
K13	7
K14	8
K15	9
K17	CH DOWN
K18	0
K19	CH UP
K20	SLOW +
K21	REC/OTR
K22	STOP
K23	P/S
K24	SLOW −
K25	REW
K26	PLAY
K27	FF
K30	CLEAR/RESET
K31	DISPLAY
K32	PROG.
K34	D. TRK
K35	OUTPUT
K37	INPUT
K38	SHIFT
K39	+
K41	−
K42	ERASE
K44	INDEX
K45	TRK +
K46	TRK −
K47	DUB
K48	MARK
K50	SEARCH
K52	CLOCK/COUNT
K57	VPS
K59	SP/LP
K81	DOWN
K83	UP
K86	HOLD
K90	ENLARGE
K93	OK
K104	BLUE
K106	CL/REV
K111	TEXT
K112	MIX
K116	RED
K117	AFT
K118	INDEX PAGE
K119	GREEN
K120	YELLOW
K121	i
K126	SHUTTLE −
K127	SHUTTLE +

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V06957

Best.-Nr.:

Technische Unterlage 065.163.8

Video Cassette Recorder VR4636

Service

Ersatzteilliste

BESTELL-NR.	0651638
[illegible]TEBEZEICHNUNG	VIDEORECORDER VHS
WARENGATTUNG	640
[illegible]UEHRUNGS-NR.	001
GERAETEBESCHREIBUNG	SAMSUNG 4KOPF,VPT,[illegible]
PRIVILEG	VR 4636
LIEFERANTEN-NR.	205476
PREIS	999.00
KATALOG	934
GARANTIEZEIT	6
KD-SEKTOR	S
[illegible]/BRINGE	WERKSTATT
BETREUUNG	EIGEN
KOSTENTRAEGER	EIGEN
REPARATURFAEHIG	JA

KAT. 934 DATUM 15.10.93 SEITEN 9

Quelle Schickedanz AG & Co.
Kundendienstzentralleitung Duisburger Str. 57, 90451 Nürnberg
Bei allen Reparaturen sind die gültigen Sicherheitsvorschriften zu beachten!

Nachdruck nicht gestattet
Änderungen vorbehalten
Fü.

TEILE AUS EXPLOSIONSZEICHNUNG

6-1. INSTRUMENT ASSEMBLY:

1	FRONTBLENDE KPL.	786 157 8	001
2	KLAPPE,FRONTBLENDE	786 158 6	001
5	DAEMPFER	786 159 4	001
21	KLAPPE,CASSETTENFACH	786 160 2	001
22	FEDER	769 833 5	001
27	KNOPF-SHUTTLE	786 161 0	001
32	RING-SHUTTLE	786 162 8	001
101	GEHAEUSEOBERTEIL	786 163 6	001
102	BLENDE,LINKS	786 164 4	001
103	BLENDE RECHTS	786 165 1	001
106	GEHAEUSEUNTERTEIL	786 166 9	001
110	FUSS	786 207 1	001
200	LAUFWERK DX3W-R	769 834 3	001
600	HAUPTPLATINE	786 167 7	001
601	KOPFVERSTAERKER	786 168 5	001
602	PLATINE-OSP	786 169 3	001
603	PLATINE-I/O	786 170 1	001
604	PLATINE-ZF	786 171 9	001
605	PLATINE-HIFI	786 172 7	001
607	PLATINE-TOPTEXT	786 173 5	001
630	HALTER,IR-LED	786 196 6	001
631	HALTER,PHOTO-TRANS.	786 199 0	001
632	HALTER,REEL-SENSOR	786 201 4	001
660	NETZTEIL	786 174 3	001
670	PLATINE-TIMER	786 175 0	001

6-2 MECHANICAL PARTS 1 TOPVIEW

T201	WICKELTELLER,L	769 404 5	[illegible]
T202	WICKELTELLER,R	769 405 2	[illegible]
T203	BREMSHEBEL,L	769 406 0	001
T204	BREMSHEBEL,R	769 407 8	001
T206	HAUPTBREMSE,L	769 408 6	001
T207	HAUPTBREMSE,R	769 409 4	[illegible]
T209	ZAHNRAD S1	769 410 2	[illegible]
T210	ZAHNRAD S2	769 411 0	001
T211	ZAHNRAD T	769 412 8	001
T212	ZAHNRAD S3	769 413 6	[illegible]
T217	HEBEL,AUFN.SCHALTER	769 836 8	001
T219	LOESCHKOPF,GESAMT	769 415 1	001
T220	UMLENKHEBEL LINKS KPL	769 837 6	001
T221	UMLENKHEBEL RECHTS	769 838 4	001
T222	ARM,RUECKLAUF	769 418 5	001
T226	A/C-KOPF EINHEIT	769 839 2	001
T228	HUBRAD	769 420 1	001
T229	GA-ROLLE,EINHEIT	769 421 9	001
T232	ZWISCHENRAD	769 422 7	001
T233	GETRIEBEEINHEIT	769 840 0	001
T274	PLATINE,F/E-KOPF	769 797 2	001
T280	FUEHLHEBEL MIT BREMSBAND	769 424 3	001
T300	KOPFEINHEIT 6K	786 176 8	001
T301	KOPFRAD 6K	786 177 6	001
T303	KOPFUNTERTEIL	786 178 4	001
T305	KOPFMOTOR	769 843 4	001

6-3 MECHANICAL PARTS 2 BOTTOMV

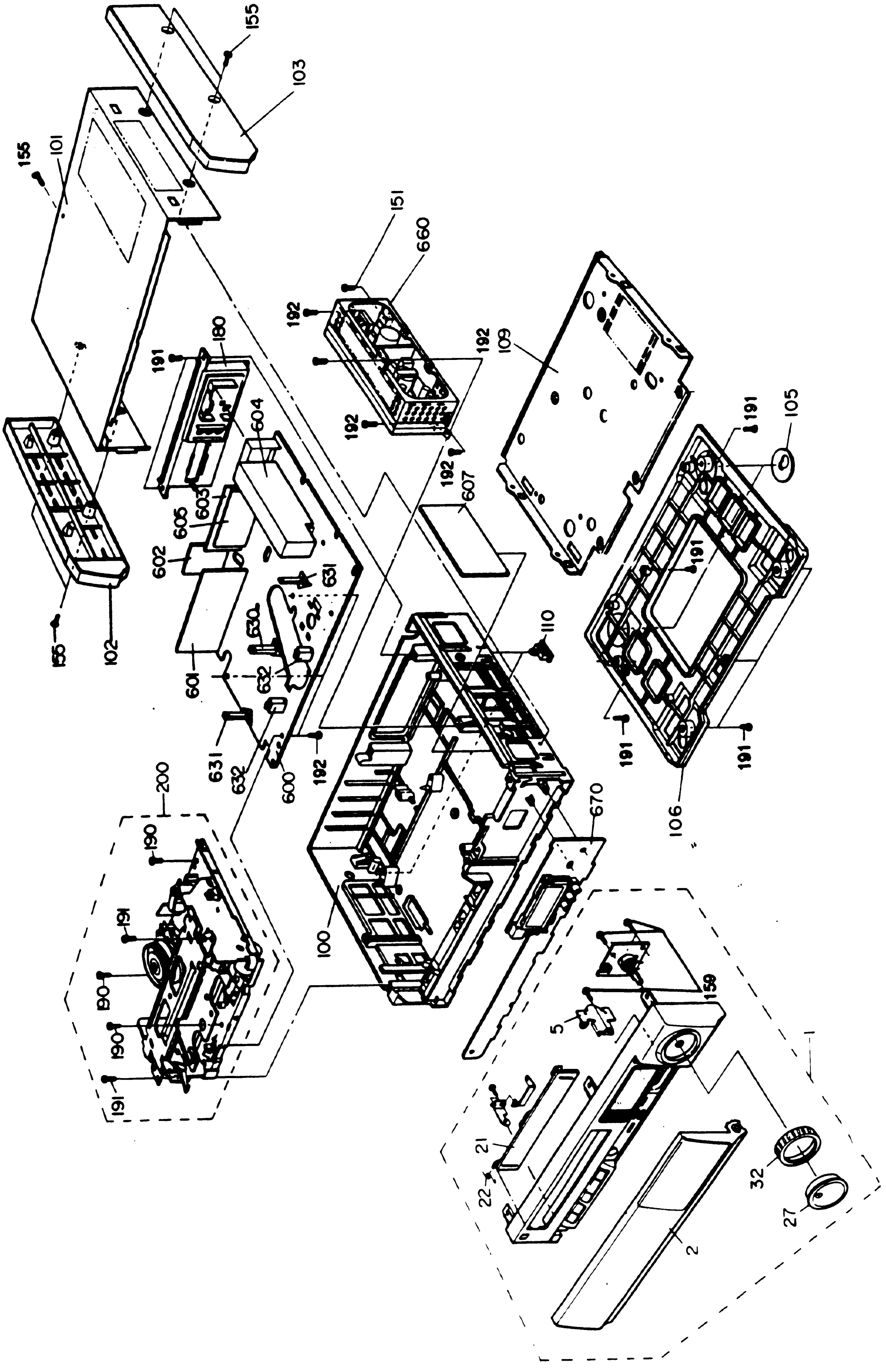
B251	HAUPTSCHIEBER	769 429 2	001
B252	LADEHEBEL,L	769 430 0	001
B253	LADEHEBEL,R	769 431 8	001
B255	ZAHNRAD	769 844 2	001
B256	CAPSTANMOTOR	769 845 9	001
B257	RIEMEN,CAPSTAN	769 434 2	001
B258	KUPPLUNGSEINHEIT	769 435 9	001
B259	ZAHNRAD E/J	769 436 7	001
B260	ZAHNRAD	769 846 7	001

72	B261	HEBEL,UMLENKUNG	769 438 3	001
73	B262	HEBEL	769 439 1	001
74	B263	SCHIEBEHEBEL	769 440 9	001
75	B265	LADEEINHEIT	769 847 5	001
76	B275	MODE-SCHALTER	769 447 4	001
77	B277	MASSESCHLEIFER	769 448 2	001
78	B278	BREMSE,CAPSTAN	769 449 0	001
79				
80		6-4 HOUSING ASSEMBLY:		
81		---------------------		
82	H500	CASSETTENSCHACHT KPL	769 450 8	001
83	H520	CASSETTENFUEHRUNG	769 451 6	001
84	H530	SCHACHTSEITE L	769 452 4	001
85	H540	SCHACHTSEITE R	769 453 2	001
86	H550	FUEHRUNGSHEBEL	769 454 0	001
87				
88		ELEKTRISCHE TEILE		
89		=================		
90				
91		NETZTEIL:		
92		---------		
93		NETZTEIL	786 174 3	001
94	BD101	GLEICHRICHTER,DF06M 720V 1A	769 799 8	001
95	IC101	IC STR 11006 SMPS HYBRID SIP	769 800 4	001
96	IC102	IC PQ 12RF11	769 367 4	001
97	L101	NETZEINGANGSFILTER,SHL 030	769 801 2	001
98	Q101	TRANSISTOR 2SD 1207T	769 802 0	001
99	T101	TRAFO	786 179 2	001
100				
101		TIMER:		
102		------		
103		PLATINE-TIMER	786 178 0	001
104	DT701	DISPLAY	786 182 6	001
105	IC701	IC LM 393N	765 747 1	001
106	JA701	BUCHSE,CINCH GELB	786 183 4	001
107	JA702	BUCHSE,CINCH WEISS	786 184 2	001
108	JA703	BUCHSE,CINCH ROT	786 185 9	001
109	RM701	FB-EMPFAENGER	786 186 7	001
110	SW730-736	SCHALTER	769 375 7	001
[illegible]	SW737	SCHALTER,SCHIEBE	786 187 5	001
112	SW738+739	SCHALTER,SCHIEBE	786 188 3	001
[illegible]	SW740	SCHALTER,SCHIEBE	786 187 5	[illegible]
[illegible]	VR702	POTENTIOMETER	786 189 1	[illegible]
115				
[illegible]		HAUPTPLATINE:		
117		-------------		
[illegible]	600	HAUPTPLATINE	786 167 7	[illegible]
119	Q151-153	TRANSISTOR KSC 2328-Y	769 379 9	[illegible]
120	Q154	TRANSISTOR KSA 928A-Y	766 909 6	001
121	Q155	TRANSISTOR KSA 643-Y	766 920 3	001
122	Q156	TRANSISTOR KSR 1003	744 909 3	001
123	Q157+158	TRANSISTOR KSA 928A-Y	766 909 6	001
124	Q159	TRANSISTOR KSA 643-Y	766 920 3	001
125	Q160	TRANSISTOR KSR 1003	744 909 3	001
126	Q161	TRANSISTOR KSA 643-Y	766 920 3	001
127	Q162	TRANSISTOR KSR 1003	744 909 3	001
128	Q163	TRANSISTOR KSA 928A-Y	766 909 6	001
129				
130		SYSCON-TEILE:		
131				
132	C607	ELKO 0,1F 5,5V	769 813 7	001
133	IC601	IC HD 6433724-B41F	786 209 7	001
134	IC602	IC KA 8301	769 383 1	001
135	IC603	IC KM 93C46	766 903 9	001
136	IC604+605	IC TC 4094 BP	767 853 5	001
137	IC607	IC KA 7533	769 811 1	001
138	LD601	IR-LED,GL-451	769 444 1	001
139	Q601	TRANSISTOR KSA 733-Y	723 511 2	001
140	Q602	TR KSR1004	723 535 1	001

141	Q604	TR KSC945-Y		723 509 6	001
142	Q641	TRANSISTOR KSC 1623 G	SMD	769 812 9	001
143	Q643+644	PHOTO-TRANSISTOR PT 493F		769 443 3	001
144	Q645+646	SENSOR,REEL SG-105LF		769 445 8	001
145	SW640	SCHALTER,AUFNAHME		769 446 6	001
146	XT601	KERAMIK-SCHWINGER 8MHZ		769 814 5	001
147					
148		SERVO-TEILE:			
149					
150	IC201	IC KA 8321	SIP	769 815 2	001
151	Q201+202	TRANSISTOR KSR 1104	SMD	769 816 0	001
152	Q203	TRANSISTOR KSR 2103	SMD	769 819 4	001
153	Q204	TRANSISTOR KSR 1104	SMD	769 816 0	001
154					
155		AUDIO-TEILE:			
156					
157	IC501	IC LA 7295		724 586 3	001
158	LD02	SPULE,OSZILLATOR 70KHZ A/E		769 817 8	001
159	OSC501	SPULE,OSZILLATOR 70KHZ A/E		769 817 8	001
160	Q501	TRANSISTOR KSC 1008		744 882 2	001
161	Q503	TRANSISTOR KSC 1623 G	SMD	769 812 9	001
162	Q01	TRANSISTOR KSC 1008		744 882 2	001
163					
164		TUNER-TEILE:			
165					
166	U4A1	TUNER TECC2885VA 14C		769 820 2	001
167	U4A2	HF-MODULATOR MDLK6D929A		769 821 0	001
168	IC4A1	IC LA 7920		959 826 9	001
169	IC4A2	IC KA33V		723 538 5	001
170	Q4A1	TR KSC945-Y		723 509 6	001
171					
172		Y/C-TEILE:			
173					
174	FL3V01	VERZOEGERUNGSLEITUNG		769 385 6	001
175	Q3V01	TR KSC945-Y		723 509 6	001
176	Q3V02	TRANSISTOR KSR 1104	SMD	769 816 0	001
177	Q3V03	TRANSISTOR KSC 1623 G	SMD	769 812 9	001
178	IC3S02	IC BA7025L		723 242 4	001
179					
180		LEVEL-METER TEILE:			
181					
182	IC6L01	IC CD 4053 BC		786 191 7	001
183	IC6L02	IC BA6138		724 354 6	001
184					
185		KOPFVERSTAERKER:			
186		----------------			
187		KOPFVERSTAERKER		786 168 5	001
188	IC301	IC BA 7277 S DIP		786 193 3	001
189	IC303	IC MSM 7403RS SIP		769 387 2	001
190	IC801	IC BA 7743 S DIP		786 195 8	001
191	Q301	TR KSR1004		723 535 1	001
192	Q302-306	TRANSISTOR KSC 1623 L SMD		780 633 4	001
193	Q307	TRANSISTOR KSA 812-G	SMD	786 205 5	001
194	Q308	TR KSR1004		723 535 1	001
195	Q309	TRANSISTOR KSA 812-G	SMD	786 205 5	001
196	Q310-315	TR KSR1004		723 535 1	001
197	Q318	TRANSISTOR KSC 1623 L SMD		780 633 4	001
198	Q319	TR KSR1004		723 535 1	001
199	Q322	TRANSISTOR KSC 1623 L SMD		780 633 4	001
200	Q330	TR KSR1004		723 535 1	001
201	Q8101	TRANSISTOR KSC 1623 L SMD		780 633 4	001
202					
203		OSP-PLATINE:			
204		------------			
205	602	PLATINE-OSP		786 169 3	001

207		I/O-PLATINE:			
[illegible]		------------			
[illegible]	[illegible]03	PLATINE-I/O		786 170 1	[illegible]
210	IC4301	IC TA 7347 P		969 654 3	001
211	IC4302	IC KA 8403		766 918 7	001
212	IC4301	BUCHSE SCART		769 825 1	001
213	IC4302	BUCHSE,CINCH GELB		769 826 9	001
214	IC4303	BUCHSE,CINCH WEISS		769 827 7	001
215	IC4304	BUCHSE,CINCH ROT		786 198 2	001
216	Q4301+4302	TRANSISTOR KSA 733-Y		723 511 2	001
217	Q4303	TR KSC945-Y		723 509 6	001
218	Q4304	TRANSISTOR KSA 733-Y		723 511 2	001
219	Q4305	TR KSR1004		723 535 1	001
220	Q4306	TRANSISTOR KSR 2001		766 921 1	001
221	Q4307	TRANSISTOR KSA 733-Y		723 511 2	001
222					
223		ZF-PLATINE:			
224		------------			
225	IC401+402	IC TDA 8415		775 053 2	001
226	IC403	IC TDA 8415 DIP		786 200 6	001
[illegible]	[illegible]02	TRANSISTOR KSR 1104	SMD	786 206 3	001
[illegible]	[illegible]	TR KSC945-Y		723 509 6	[illegible]
229	Q406	TRANSISTOR KTC 3197 AT		776 286 7	001
[illegible]	[illegible]07	TRANSISTOR KSR 1003		744 909 3	[illegible]
[illegible]	[illegible]08	TRANSISTOR KSA 928A-Y		766 909 6	[illegible]
232	Q411	TRANSISTOR KTC 3197 AT		776 286 7	001
233	Q413	TRANSISTOR KSR 1104	SMD	786 206 3	001
234					
235		HIFI-PLATINE:			
236		--------------			
237		PLATINE-HIFI		786 172 7	001
238	FL801	FILTER BP 1,4M/1,8M		786 208 9	001
239	IC802	IC TA 8813 N DIP		786 202 2	001
240	IC803	IC KIA 7809P SIP		786 203 0	001
241	Q801	TRANSISTOR 2SD 1486 SQ		786 204 8	001
242	Q802	TRANSISTOR 2SD 1486 SQ		786 204 8	001
243	Q803	TRANSISTOR KSA 812-G	SMD	786 205 5	001
244	Q804	TRANSISTOR KSR 1103 SMD		780 634 2	001
245					
246		TEXT-PLATINE:			
247		--------------			
248		PLATINE-TOPTEXT		786 173 5	001
249		------------------------------			
[illegible]					[illegible]
[illegible]	[illegible]2559	FERNBEDIENUNG NR2559		786 180 0	[illegible]
[illegible]		DECKEL.BATTERIEFACH		769 805 3	001

6-1. Instrument Assembly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607
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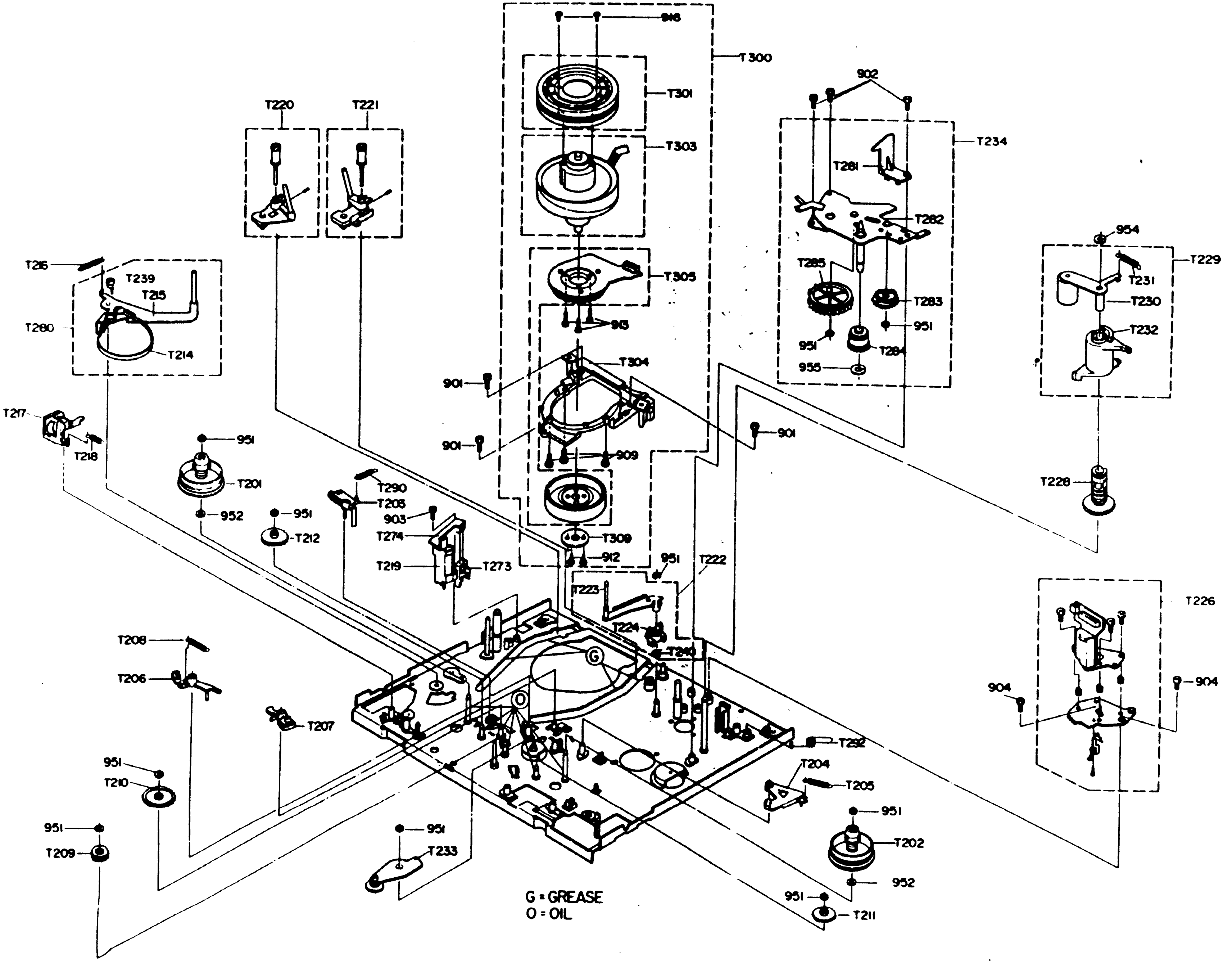
6-2. Mechanical Parts (1) ; Top View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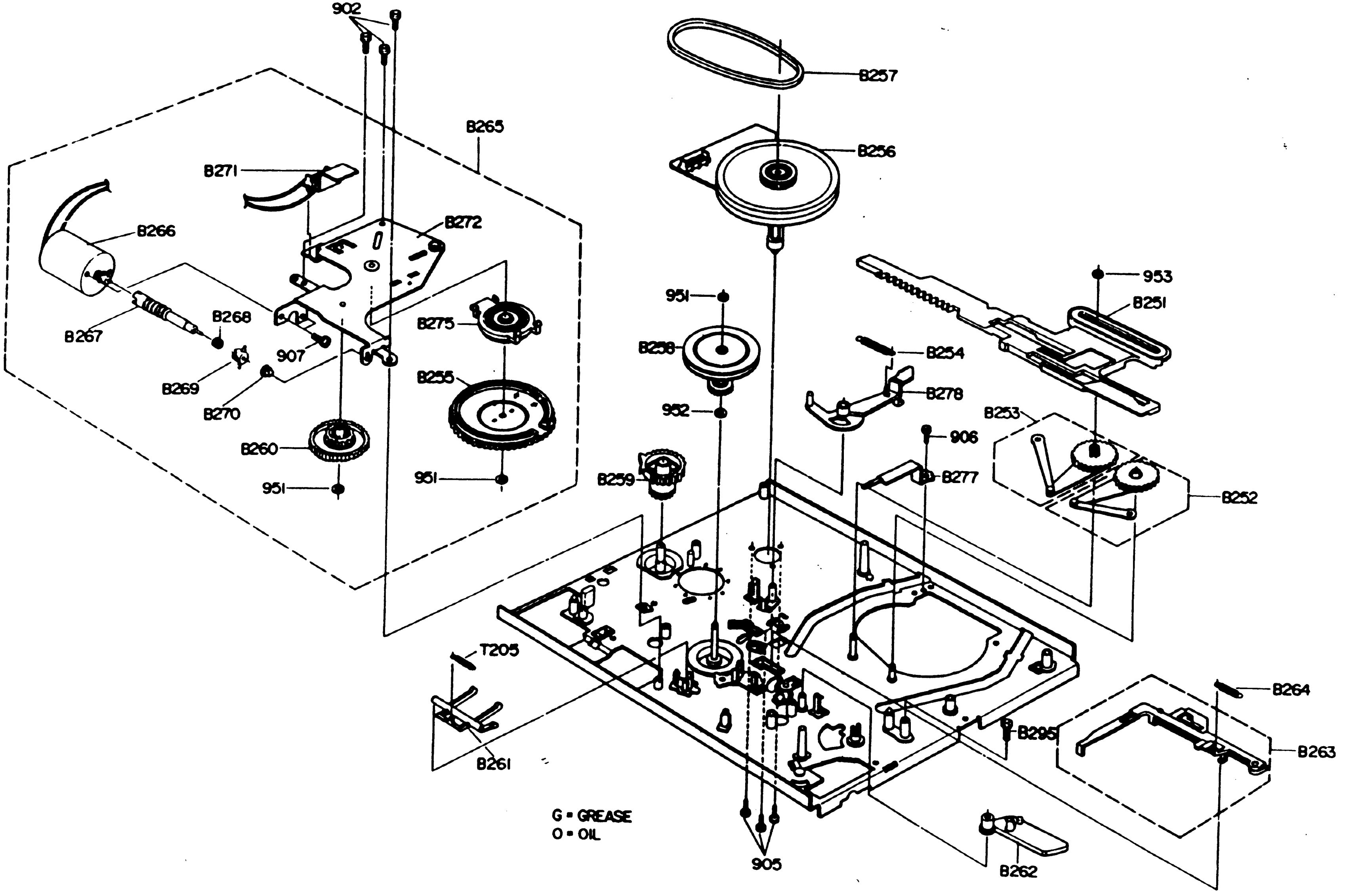
951
T201
952
T290
T203
951
T212
903
T274
T219
T273
951
T222
T223
T224
T240
G
O
902
T234
T281
T282
T285
T283
951
951
T284
955
901
954
T229
T231
T230
T232
T228
T226
904
904
T208
T206
T207
951
T210
951
T209
951
T233
T292
T204
T205
951
T202
952
951
T211
G = GREASE
O = OIL

6-3. Mechanical Parts (2) ; Bottom View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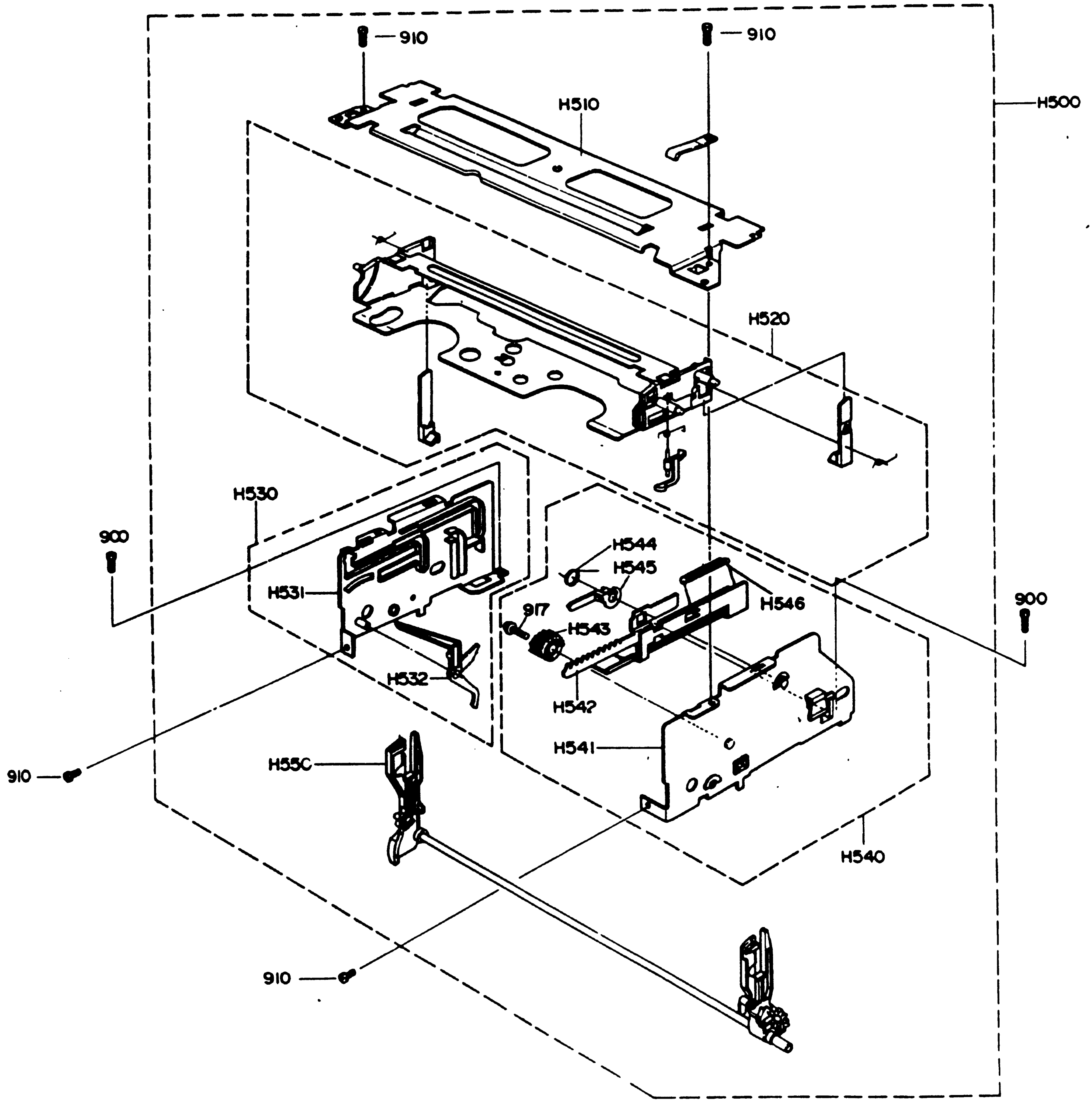
B278
B270
952
B253
906
B260
B277
951
B259
B252
951
T205
B264
B295
B263
B261
B262
905
G = GREASE
O = OIL

6-4. Housing Assembly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